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Investigation of the exploratory power of the innovation diffusion model in the implementation of a university e-learning strategy

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Abstract

This research explores the process of change management associated with innovation in a complex organisation through an investigation into the impact of introducing e-learning in a university.

Using the conceptual framework of innovation diffusion, the research examines the complex nature of change through the perspectives of individual members of the organisation who are affected by it as it unfolds. These 'actors' are situated at different levels in the organisational hierarchy and include senior university executives, academic managers and academics, thereby providing both an organisational and an individual viewpoint on the change processes associated with the adoption and diffusion of e-learning.

Using a qualitative methodology based on the constructionist tradition, the research is portrayed through a single-site case study. The site is a medium sized university located in southern England. Individual and group interviews with university staff are the primary means of collecting data and the research strategy is heavily influenced by the acknowledged insider status of the researcher.

The research makes a contribution to understanding change management in universities and the ways in which individuals working in these devolved organisations both respond to change and contribute to the shaping of policy and practice associated with it. At an organisational level, the research emphasises the influence on the process of diffusion arising from senior management attitudes towards the innovation and their willingness or ability to act as its champions. It also recognises the potential for middle managers (academic managers) to slow down the rate of adoption and diffusion within the organisation, thereby subverting the progress of strategic change associated with the innovation.

For individual academics, the research found that the realities of adopting e-learning threatened their sense of academic identity and re-positioned their 'high touch' relationships with students, which adds a new dimension to previously identified barriers to the adoption of e-learning such as lack of resources, need for support and absence of reward. The research findings also demonstrate how, through the analysis of emic as well etic themes arising from the qualitative data, the potential for individual-blame or pro-innovation biases often identified in diffusion research may be ameliorated.

Finally, this combination of organisational and individual perspectives revealed through the use of innovation diffusion as a framework, together with the reflexive analysis of an insider researcher, provides new insight into the process of promoting change that is stripped of managerial gloss and represents the 'lived' messiness that is organisational change in universities.

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Chapter 1: Higher education and change: an introduction to the challenge of e-learning

Introduction

The higher education sector is being challenged by a number of significant political, economic, socio-political and technological drivers for change. In this study, e-learning is offered as an example of one these drivers that is having a significant impact on the operation of universities and on the nature of the work undertaken by those within them. The domain of e-learning is broad, encompassing the hardware of electronic information and communication technologies (ICT), the process of learning through using these technologies and the pedagogy of their use in teaching. Debates about the definition and use of e-learning, and of the many other terms associated with it, such as online learning, web-based learning and virtual learning environments (VLE), are similar to the debates about the domain of educational technology in the 1960s and 70s. However, this new wave of technologies for learning is far broader than earlier innovations such as computer assisted learning and is having a far greater and more disruptive impact. This is because the ubiquity of ICT in everyday lives and its role in re-shaping access to information in the 'knowledge society' (Dutton and Loader 2002:8) now ensures that e-learning is accessible to, and accepted by, learners in a wide range of situations, both on and off campus, and for formal and informal learning. For example, in North America, "Teaching at over 80% of all American and Canadian colleges and universities now proceeds on the assumption that all students have daily access to the Internet" (Brown 2004:24). In the UK however, although most higher education institutions (HEIs) are introducing VLEs they are reported to be struggling to engage students and staff with e-learning to any significant extent (Becker and Jokivirta 2007; Salmon 2005). The slow rate of adoption of e-learning by universities in the UK has given cause for concern to the government, resulting in large amounts of funding being directed to higher education to encourage increased adoption of e-learning through more strategically oriented approaches (HEFCE 2005a; JISC 2004a; JISC 2006).

Much is being promised through e-learning; it is claimed to posses the potential to transform the shape of education, yet it is also cited as a potential cause of the

demise of universities as we currently know them (Oakley 1997, cited in Jones and O'Shea 2004). It has become a significant agenda for government and promoted with passion; the DfES invited readers of its e-learning strategy to imagine an education system "fuelled by e-learning" that empowers learners, encourages more creative and innovative teaching, offers greater flexibility, achieves better value through economies of scale, and generates a professional workforce and fulfilled citizens (DfES 2003a: 5). Yet, for others, e-learning signifies the end of universities as we know them. They see the traditional values and structures of universities being threatened by the growth of for-profit universities such as the University of Phoenix or by globally constituted consortia of universities which exploit the potential of e-learning for recruiting and delivering learning to students anywhere in the world (Oblinger and Rush 1997). Further threats may be posed by large, private-sector corporations that can apply to the government for authority to award their own degrees (OBHE 2006). This is all the more likely to threaten HE institutions if they continue to use traditional teaching methods such as lectures and seminars that appear to emphasise the primacy of information provision in teaching, which is what e-learning can achieve so well (Bourner and Flowers 1997).

The implications of e-learning for those teaching in universities are also many and complex. The effective utilisation of e-learning requires academics to become skilled in the use of new technologies and to move from a teaching paradigm that emphases the transmission of expert knowledge to a learning paradigm that requires the facilitation of learning pathways. This new paradigm combines student-centred approaches to teaching with recognition of the validity of knowledge drawn from, or constructed from, sources other than traditional disciplinary discourses (Cullen et al. 2002). These features associated with e-learning could "fundamentally change the role of the academic" (Blass and Davis 2003: 228). University lecturers have traditionally enjoyed considerable independence in their choice of teaching methods but as the scale and complexity of the introduction of e-learning within universities requires a more strategic and institute-wide approach to its implementation than with previous pedagogic initiatives, they may experience greater direction over their use of specific teaching methods. E-learning has the potential to challenge academics' perceptions of learning and teaching, their role identity and self-efficacy since "Pedagogy is more than simply putting lecture notes online" (Blass and Davis

2003: 228). Bourner and Flowers (1997) suggest that the most appropriate way forward is to promote an approach to teaching and learning that combines the 'high tech' contribution of e-learning with the best features of the student-centred 'high touch' face to face approach such as workshops and action learning sets.

However, ten years after Bourner and Flowers circulated their paper to UK university Vice Chancellors it still appears that academics seem unwilling to adapt their traditional 'high touch' approaches to encompass the possibilities afforded by the technologies in combination with the new learning paradigm as quickly as university managers would wish and ways of facilitating them to change their teaching approach to accommodate e-learning remain contested, for reasons I discuss next.

Managing change associated with implementing e-learning

For those with responsibility for managing change associated with the introduction of e-learning, the challenges are considerable. As I indicated above, the drivers are numerous and the demands for accountability are clearly evident. Universities are complex organisations to manage, so it is not surprising that observers of the strategic implementation of e-learning within universities have commented that "Many universities have got stuck on their way towards being digital" (Floor [online]), meaning, as we shall see later, that a threshold of adoption is reached but then often progress is halted, so the factors affecting its adoption by academics and its diffusion within universities becomes an important area of study in order to better understand the process of strategic implementation under these circumstances. Innovation diffusion can occur at many levels and through diverse networks. Individual academic innovators and early adopters plough their own furrow and are just as likely to influence their immediate colleagues to reject e-learning as much as to adopt it, when they observe how much effort is required to implement it. Academics may be well networked with colleagues within their academic department but have little or no contact with other colleagues across the rest of the university. They are more likely to have greater contact with colleagues outside their university who belong to the same academic discipline or research networks. The e-learning field is also the domain of other experts such as learning technologists located in central

educational development units, or librarians, who also seek to influence academics' use of the technology. For these reasons, the strategies for managing change relating to the adoption of e-learning are varied and complex, with the diffusion of innovation just one of the many ways in which change can be viewed (Kezar 2001a).

Change models and devolved organisations

Universities are interesting organisations in which to undertake research into change management, they may appear to have similar concerns and structures but they have unique cultures. Strategic management in universities has grown in importance as academic managers and administrators search for more appropriate ways of implementing change to meet the external threats currently facing the higher education sector. Universities traditionally are considered to be highly devolved organisations, so an incremental, contingent approach to change management would initially appear to be the appropriate one to adopt. However, the new model actually adopted in universities is often influenced more by the positivist technical-rational approach, giving rise to claims about the inappropriateness of the introduction of this "new managerialism" in collegial organisations and an unease among academics as this appears to threaten their traditional values and autonomy, especially when it is associated with a change such as moving to e-learning. From my perspective as change agent I contend that there is a place for both approaches in the implementation of strategic change, particularly in the case of e-learning, for the following reasons. In many organisations a decision to adopt an IT system is made at a corporate level by senior management and implementation occurs through a carefully planned operation covering all staff. In universities, however, some academics begin using e-learning on their own initiative, without full corporate backing or resources, because not only do they have the knowledge and the inclination to try innovative approaches in their teaching, but also because there is a culture of individual autonomy in the working environment that supports and even encourages this individualistic approach. This can inevitably lead to an uneven spread of adoption across the university, which can present problems for technical support, demands on staff development, inequality of learning experience for students, damage to the quality of education offerings and potentially loss of market opportunity. Within such a complex environment,

knowing how long to encourage an incremental approach to change or deciding when the time is right for a more directive decision to effect a transformational change, with its attendant disruption to the experiences of the actors involved, is problematic.

It was this challenge of implementing a technological change in a devolved organisation that led me to explore theories associated with the adoption and diffusion of innovation as identified by Rogers (2003) to inform the conceptual framework for this research. Partly this was because Rogers' work has been cited as the model for other research studies in this area, so there was an opportunity to contribute to this body of knowledge, but also because I wanted to explore the inherent tension arising from the need to adopt a bottom-up, incremental approach to change management on account of the collegial nature of a higher education organisation, against the need to enforce a top-down decision to adopt a technology at the organisational level on account of the nature of the innovation.

Rogers' model emphasises a number of variables that influence innovation adoption and diffusion, including the characteristics of the potential adopters, their working environment and their social contacts with whom they network. In a devolved organisation which places a premium on collegial networks, this seemed to offer an interesting area to explore that had not arisen before in existing literature. It allowed me to explore areas related to the changing nature of academic work; resistance to the new managerialism and my own role as change agent. As I will show, it becomes apparent that the introduction and implementation of e-learning has more to do with organisational climate, culture and politics that combine to create an "ecology of e-learning games" (Dutton, Hope Cheong and Park 2004:133), than it has to do with pedagogy.

Overview of the research aims and objectives

The research is therefore grounded in theories relating to the management and implementation of change. By illuminating factors affecting the adoption and diffusion of e-learning in a university with a highly devolved organisational

structure and a strong adherence to the 'high touch' approach to pedagogy, this research aims to explore how change is managed in such organisations and the ways in which individuals working in these organisations both respond to change and contribute to the shaping of policy and practice associated with it. Using the conceptual framework of innovation diffusion, I examine the messy nature of change from the perspectives of those affected by it at different levels of the organisation. At the institutional level the research examines the use of change strategies for promoting the adoption and diffusion of e-learning as perceived by university managers at both executive and middle levels. At an individual level it explores the perceptions of e-learning held by academics and the factors influencing their adoption of its 'high tech' affordances. As a change agent with responsibility for implementing e-learning I attempt to understand how these different perspectives might inform the interventions I might make to increase the level and speed of adoption of e-learning across the university in line with the organisation's formally expressed strategic priority to increase flexible learning.

Institutional setting for the case study

The site for the research, Southern University, is a medium sized, post-92 university in the south of England. During the period when I was undertaking the research, the University was beginning to use e-learning, having had a long tradition of innovative adoption of information and communication technologies (ICT) more broadly. A few individual academics began experimenting with aspects of e-learning such as computer conferencing and automated assessment packages. Mostly these techniques were used to support blended learning on campus, a mix of face to face teaching and e-learning. A few programmes that had been developed initially as distance learning programmes using print based materials began making greater use of e-learning. As the e-learning tools became more sophisticated and were aggregated into virtual learning environments (VLE), they required integration with other IT systems. Managing the change process more strategically thus became necessary for the organisation. Eventually government funding, specifically targeted at learning and teaching innovation, was made available that enabled larger developments to be enacted that would have greater impact upon all academics rather than just the early adopters. After following the faltering steps towards encouraging the greater use of e-learning through the promotion of multiple platforms in a

devolved model, the study culminates in the exploration of the attempt to introduce one standard VLE across the University after a change of thinking which threatened to demotivate the early adopters and destabilise the mainstream learning and teaching communities. In addition to the role of researcher for this study, I also had a substantive role within the University as the manager of a central educational development service that was promoting and supporting e-learning developments.

Structure of the thesis

Following this introduction, I continue by examining the literature on the implementation of e-learning in higher education (HE), concentrating on the change models in use and the various discourses that have been used to explain the adoption of e-learning by academics. I review a number of models of change management and discuss their relevance to the research context, suggesting that although initially seeming appropriate, there are a number of anomalies that need to be addressed with reference to organisations in the HE sector and I conclude that innovation diffusion theory (Rogers 2003) provides the most appropriate conceptual framework in this case.

Examples of both positivist and interpretivist methodological approaches to research are evident in the literature relating to the strategic implementation of e-learning, but in the light of the overall aim of my research and the nature of the research questions, I chose to adopt a case study approach using qualitative methods of data collection and analysis. The innovation diffusion model was used as a sensitising device for the overall research design. As the research progressed, my position as an insider to the organisation in which I was conducting the research began to exert a critical influence. I will return to this more fully in the discussion in the methodology chapter.

The data analysis and discussion presents through the case study the story of the introduction of e-learning into one university and the lived realities of the actors involved in this change. I begin by using documentary evidence to establish the background to the introduction of ICT and e-learning in the

University and then consider the views of University managers on the drivers affecting the University, the role of e-learning and their approach to change management. These managers included two members of the University executive and senior academics responsible for managing academic groups. I follow this with a thematic analysis of responses from academics gained from a focus group composed of individuals who have varied experiences of e-learning, including those who would be described, in Rogers' (2003) terms, as early adopters, early and late majority adopters and laggards. I begin by identifying their perceptions about the barriers and enablers influencing their adoption of e-learning and move on to explore other themes associated with more fundamental changes to the nature of their academic work. This provided me with additional themes to explore through subsequent in-depth interviews with individual academics, whom I selected for the sample because they appeared to be early or late majority adopters, often referred to as the 'mainstream' adopters. These data are supplemented with my observations and reflections from my research journal, minutes of meetings and email correspondence.

Conclusion

This introduction has established that the UK HE sector is facing many challenges, one of which is managing change associated with the development of e-learning. The dilemma of which approach to change management to adopt is encapsulated in my own experiences: in addition to reporting the voices of those affected by the changes during this research, I also experienced the tensions between different approaches myself. At the same time as I was undertaking my research, my role within the organisation was prompting me to use the formal organisational processes for implementing change, for example, policy papers, business plans, operating statements, and budget forecasts, that encouraged me to utilise a technical rational approach to change management, which I recognised I had to adopt in order to be considered politically capable, since:

> Those groups who accept and deploy strategic discourses enjoy an aura of expertise and material privilege within organisational hierarchies, while those who are unable or unwilling, to deploy that discourse, lose status (Darwin et al 2002:4.)

As I reflected on this during the course of undertaking the research, I questioned the extent to which this rationalist approach to managing change was appropriate. My experience of working with and listening to individual academics who were most influenced by the change, indicated a need for a far more contingent approach that included both incremental and transformative interventions. The key question to ask, as the vision for e-learning continues to be expounded but its achievement seems difficult to grasp, is “how do we get to there from here?” (Bourner and Flowers 1997:online np)

I shall now move on to establish the theoretical foundations for the study by examining previous work in this area and its significance for my research.

Chapter 2: The complex relationship between organisational change in universities and e-learning: review of the literature

Introduction

Chapter 1 established the context for the research, the introduction of a technological innovation, e-learning, into a devolved organisation, a university, and an exploration of the impact that the process of change management associated with this innovation had on the actors involved.

This chapter explains the rationale for the focus of the research study and its conceptual framework. It begins by exploring the changes affecting higher education that include political, economic, technological and socio-cultural factors. The tensions caused through the process of managing these changes in universities are explored in the light of their devolved nature and complex organisational structures. This includes a consideration of the effects of the changes on the working patterns of academics. We find that the changing nature of academic work is having an impact on the professional identities of both academic staff and academic managers and that both groups of staff are experiencing an erosion of their traditional identities as academics and leaders of academics.

This turbulent change environment is exemplified through an in-depth examination of the impact of one particular change force, e-learning, which is positioned both as a driver for change and as a solution to some of the problems facing the HE sector. The tensions surrounding the change processes associated with introduction of e-learning are illustrated by reviewing a number of case studies. However, much of this literature celebrates successful change management from the perspective of those managing the change rather than providing a more realistic view of the messy nature of change as perceived by those affected by it, as might be expected from a review of the changing working conditions referred to in the previous paragraph.

In order to develop a fuller understanding of ways of exploring change management in this complex environment and to identify an appropriate conceptual framework for the research investigation, some contrasting perspectives through which to view the strategic management of change are then introduced. Two broad contrasting paradigms that offer frameworks for managing change are identified initially. The 'modern paradigm', or 'technical-rational' (TR) approach, draws on positivist assumptions that a logical, rational approach can be taken to managing change. In comparison, the 'post-modern' paradigm offers a relativist approach that allows a plurality of views to be recognised in the change scenario. I use the term 'post-modern' for convenience to encompass a collection of 'soft systems' approaches to change management that have been influenced by an interpretive epistemology, including organisational development and contingency theory. It is argued that none of these frameworks is entirely appropriate as a vehicle for explaining the management of technological change in a devolved organisation.

A third approach, the diffusion of innovation theory, is examined and I conclude that this offers a more appropriate conceptual framework for exploring change associated with the introduction of e-learning into a university where a mix of corporate and individual decisions to adopt have to be made, where the change agent is working from a central, middle-out position and where the existence of appropriate social networks, or lack of them, in a devolved organisation are important factors in the innovation diffusion process.

As I will go on to show in this chapter, the e-learning literature perpetuates the dominance of the management driven technical rational approach to change that is unhelpful to the insider change agent who may not be in a position to utilise this approach, but diffusion theory not only offers a more helpful conceptual framework through which to understand what is going on during the implementation of e-learning in a devolved organisation but is also only partially utilised in previous studies on e-learning, providing an opportunity for this research to contribute to the field.

I continue with a synthesis of the changes affecting higher education.

Change forces affecting higher education

There are well documented external environmental changes that are driving change within organisations and affecting the working patterns of individuals. The drivers affecting organisations generally are also having a significant impact on higher education institutions. These change forces are often classified as political, economic, technological and socio-cultural, referred to by the mnemonic PETS (Senior 2002). The triggers for change include government regulation and legislation, globalisation of markets and internationalisation of business and trade, major events such as wars, terrorist attacks and natural disasters, fluctuations in economic growth, changing population demographics and social habits and technological advances (Dawson 2003; Senior 2002). Examples with reference to higher education are explored in the next few paragraphs.

The major underlying change in the external HE environment is the move from an elite to a mass system of higher education that started with Robbins (CHE 1963) and was accelerated by Dearing (NCIHE 1997). The most significant drivers are confirmed through recent government strategies and illustrated most clearly in the White Paper on the Future of Higher Education (DfES 2003b). The discussion in this chapter relates primarily to the UK HE sector, but similar pressures are observed in Australia (Hanson 2002; Moses 2002), North America (Miller 1995; Summerville 2005) and Europe (Landfried 2002). The fundamental conception of the purpose of a (western) university education is changing; rather than being a process of undertaking critical enquiry for enlightenment and personal transformation (Awbry and Awbry 2001; Cullen et al. 2002) or developing “judgement, imagination and intelligence” essential to the values of democracy (Van Luchene 2004 cited Summerville 2005), it is now aimed more at acquiring useful knowledge that can be used for individual and societal gain, or, expressed even more starkly, the purpose of learning is “to become an individually more competitive item of human capital” (Clegg et al. 2003:51), as evidenced below.

Political, economic and social changes

One strong driver is a broad political desire by governments to extend the role of higher education in supporting the growth of the economy, since:

> Higher education in the UK generates over £34 billion for our economy and supports more than half a million jobs. But less than one in five businesses taps into universities' skills and knowledge. Universities and colleges can play a bigger role in creating jobs and prosperity. (DfES 2003b:6)

Not only economic gains but also social gains are sought, using higher education to promote increased social cohesion and the development of the values of citizenship, or "to develop whole persons and to teach them how to be whole for their whole lives" (Awbry and Awbry 2001:279). In the UK, the target figure is to increase participation in HE of eligible 18-30 year olds towards 50% by 2010 (DfES 2003b). The strength of the political will to widen participation has been apparent in ministerial speeches and funding papers so universities have no option but to comply, according to ministers and UK HE senior executives (Hodge 2002; Newby 2002). However, more recent analysis of the UK demographic profile suggests that this earlier aspiration maybe more difficult to reach than originally imagined, if not actually impossible. This was the conclusion reached in Bekhradnia's report forecasting the demand for higher education over the next ten years. He suggests that unless more young people, especially boys, can be persuaded to remain in school to take A levels or unless more older people can be persuaded to participate in greater numbers than at present:

> …the social makeup of higher education students is unlikely to improve as much or as fast as would otherwise be the case. (Bekhradnia 2005: paragraph 27)

Notwithstanding this set-back to policy, these two national imperatives of social inclusion and economic expansion continue to influence the content of courses offered in higher education and approaches to learning and teaching. The linking of HE with economic growth, with the concept of a degree as a route to a job, has led to many changes to the curriculum, including the incorporation of vocational and transferable skills (Coaldrake and Stedman 1999) and a recognition that the organisation of the curriculum around traditional academic disciplines is "an

insufficient base on which to build a set of appropriate educational experiences" (Barnett 1997). The introduction of the two year Foundation Degree award in the UK, with its emphasis on work-place learning and employer involvement, is further evidence of government policy to encourage closer links between higher education and the economy (Wilkes et al. 2004). Universities are exhorted to change from promoting 'knowing that' to 'knowing how' (Greenwood and Levin 2001) to maintain their place in the modern world as knowledge producers, which is under threat, both from businesses that have as good as, or better, research facilities than universities (Dunkin 2003; Finnegan 2006) and from the increased accessibility of knowledge afforded by information and communication technologies (Bourner and Flowers 1997; Cornford and Pollock 2003).

The increase in student numbers and growth in the diversity of the HE student population are encouraging universities to consider not only changing curriculum content but also patterns of curriculum delivery and developing more flexible strategies for learning and teaching, including e-learning. These initiatives are aimed at increasing access to learning from locations other than the traditional campus, for example, from home and from the work-place, and at times that are convenient to the individual student. The increased diversity of student backgrounds arising from the widening participation agenda is also resulting in the need to make changes to student support and guidance structures and processes. As students enter university with less well-developed study habits, they need a wider range of study and language support, much of which can be provide through technology.

However, although the number of students entering higher education has risen, so have the costs, and in the UK, the corresponding per capita funding from government has fallen consistently for two decades, affecting, in particular, the number of academic staff recruited:

> Over the 12 years to 1999/2000, student numbers in higher education have grown by about 70%; and average funding for teaching per student has fallen by 37%. Staff numbers have grown by about 18% over the six years to 2000/01. (TQEC 2003: 5)

This situation is likely to be alleviated in the next few years following the introduction of student fees, but the results-oriented demands for a contribution from higher education are ever present. For example, in the annual letter to HEFCE outlining the government spending on higher education 2008-09, that includes the expectation of an additional £1.3 billion in variable tuition fees for 2008, the Secretary of State comments:

> This growing public and private investment is one indication of the importance of higher education in the twenty-first century, as it makes increasingly telling contributions to all areas of the economy and society. (Denham 2008: Paragraph 2)

Technological change

Technology as a driver for change is hailed as both an imperative and a solution to problems in the HE sector, it is seen as both the demon and the saviour (Taylor, P. 1998). As the imperative driving change, technology continues to transform business organisations and practices and higher education is exhorted to ensure that its graduates can survive and prosper in this environment by developing and enhancing their IT skills (Holt and Thompson 1995). As the 'saviour', e-learning, defined as "learning facilitated and supported through the use of information and communication technologies" (JISC 2004b:10) is seen as a means of providing more efficient, flexible and accessible ways to deliver education in response to the resource constraints and changing student needs and also to stay competitive in a rapidly changing global environment (Holt and Thompson 1995; NCIHE 1997 (Dearing); Timmis 2003), as Blass and Davis suggest:

> E-learning does offer a unique selling point (USP) consistent with expressed national priorities of widening participation and increasing commercialisation of the education sector. That USP is accessibility. (Blass and Davis 2003:229)

'Customer demand' is also having an impact, as young people's familiarity with technology drives universities towards greater use of e-learning in order to meet student expectations (Oblinger 2003). Surveys of university students' familiarity with and use of IT identify that the current generation of 'conventional' undergraduates' familiarity with mobile phones, instant text messaging and other social technologies is shaping their expectations of the use of technology for teaching and learning

(Conole et al. 2006; Rae 2004; Salaway et al. 2007). So much so that young people have been referred to as the 'net generation' (Oblinger and Oblinger 2005) or 'digital natives' (Prensky 2001a and 2001b). Nor are these expectations limited to the younger generations, other studies have shown that sophisticated use of technology is common to all ages and across all sectors (Creanor et al. 2006).

However, some suggest that this universal acceptance of e-learning as the inevitable way forward exhibits a form of technological determinism that should not be accepted without question. The far-reaching consequences of the reconfiguration of access to information, people and services afforded through e-learning are not always appreciated (Dutton et al. 2004) and despite the rapid increase in virtual learning environments (VLE) in universities, there is:

> …little evidence of educational research underpinning the high expectations created by their marketing. It is difficult to find research grounds, beyond the individual case studies in Journals (e.g. ALT-J) which offer good reasons for accepting that VLEs bring sustained improvements in learning. (Clegg et al. 2003:47)

It would appear that senior managers are required to take a leap of faith when deciding to invest in e-learning, but the lack of convincing evidence about its effectiveness, together with highly visible e-learning failures such as the UKeUniversity (House of Commons Select Committee 2005) only add to the scepticism about the hype surrounding e-learning. Developed in response to the perceived threat to the local market for students from global virtual universities, yet failing to capture a share of, or even enter, this market itself, the demise of the UKeU demonstrated that investment in IT for learning and teaching is a high risk strategy with a significant level of uncertainty surrounding the outcomes. Successful implementation of e-learning requires committed leadership from senior management who are prepared to make choices as much about what to forgo as about what technology to choose, in order to find the resource to invest (Holt and Thompson 1998).

An extensive review of the role that ICTs can play in both destabilising and supporting universities is provided by Cornford and Pollock (2003) whose ethnographic study examines the impact on universities and their communities of the

introduction of several different forms of online technologies, including administrative systems dealing with student records and student recruitment as well as systems for e-learning. They agree with the position of Clegg et al. (2003) that much of the research literature about the impact of ICT and e-learning on universities is limited by its focus, either because the empirically grounded studies into the application of e-learning tend to focus on identifying a difference between the new approach and traditional approaches and ignore the wider aspects of the university organisation in which the innovation is taking place, or because studies that do consider the impact of ICT on the organisation rarely report details about the processes that happen on the way to implementation. Furthermore, these accounts are frequently reported after the implementation and tend to be written from the standpoint of the successful implementers who adopt an implicit technological determinism (Cornford and Pollock 2003). In researching the implementation of ICTs in universities they stress the importance of accepting the multiple meanings of the organisation as experienced by those who work and study in it, and the ways in which those meanings will shape and be shaped by the technology as it interacts with its audience (Cornford and Pollock 2003). Similarly, Dutton et al. (2004) agree that the traditional evaluation framework for educational innovations, of attempting to compare the impact of the innovation on teaching or learning with that of a traditional approach, hides the full extent of the dynamics associated with the political, economic and social effects of e-learning on the ecology of an organisation and the full range of actors involved in the games played out when it is introduced (Dutton et al. 2004). This suggests that the dominant TR change model in universities may not be the most appropriate. I return to this theme later in the chapter when I examine models for change management and identify my chosen theoretical framework.

This review of the drivers for change in the HE sector has demonstrated the extent of the turbulent external environment, and highlighted in particular the dual role played by ICT as both a driver for change and a potential solution to some of the challenges. However, any potential benefit that it may have is dependent on the manner in which change is implemented within the organisation and how this is received by those at whom the change is aimed. The next few paragraphs explore in greater detail the organisational structures of universities and the changing nature of the working environment for academics and their managers in order to illustrate the complex context in which change is being implemented in these organisations.

Universities as complex organisational structures

As discussed above, the external environment within which universities operate is in flux, change is continuous and accelerating. This is contributing to a growing instability and uncertainty internally. The organisational structures of universities are multifaceted and complex. Traditionally they have been regarded as autonomous, self-regulating organisations, giving rise to the popular view of their remoteness from everyday affairs expressed through the term 'ivory tower'. They have also been described confusingly as Tayloristic (Greenwood and Levin 2001), collegial (Keup et al. 2001) and bureaucratic (Bottomley et al.1999). Their highly devolved internal structures and processes have been described as "loosely coupled" (Weick 1976) and even as "anarchic" (McNay 1995). Loosely coupled systems are characterised by loose definition of policy and loose control over policy implementation (Weick 1976). This can result in lack of co-ordination, few regulations, little linkage between the concerns of managers and of those involved in teaching and research and multiple power and authority structures. These characteristics make them highly amenable to 'localised adaptation' of policy where policies originating from senior management are subjected to change as they filter down through the academic departments (Trowler and Knight 2002).

Recognising multiple variations in their organisational structures, McNay (1995) categorised universities into four types that he called collegium, bureaucracy, corporation and enterprise. The Collegium type is based on academic freedom, where teaching and research boundaries are set with reference to peer scholars in an international community. The Bureaucracy type holds regulation to be important, there is concern for consistency, quality, efficiency; decisions are made in committees, but its inherent rigidity may not make it capable of adapting to rapid change. The Corporation type illustrates a model where the executive exerts authority and power is demonstrably exercised by the Vice Chancellor. This is a culture for managing crisis, but not ensuring continuity. The Enterprise type of university is client centred, where the good of the client is the dominant criterion for decision making. There is sensitivity to markets in this type but this may be perceived by those working in the university as being contaminated by commercial values. In the first two structures, power is distributed within the institution, while in the latter two structures, power is concentrated at the centre

and then delegated. The current funding arrangements and growth of income generation activities is leading to a shift in structure, mainly from the first two types to the latter two, leading to a reduction in academic autonomy that was strongest in the Collegium structure, as discussed further on.

However, universities are not internally as mono-cultural as this categorisation implies, as McNay acknowledges, but Knight and Trowler go further to suggest that:

> …the lived reality in one department or service section is quite different from that in another: in some senses the group members may as well be in different organisations. (Knight and Trowler 2001:56)

This divergence within the single individual organisation is often attributed to cultural differences between the academic disciplines. It has been suggested that one of the reasons for the decentralised nature of universities arises from the fragmentation of knowledge and the growth of separate disciplines, around which most university structures are organised (Awbry and Awbry 2001). So, far from being ivory towers, universities could be characterised as:

> …congeries of little ivory gazebos, generally run as professional disciplinary conclaves whose control over their intellectual agendas is jealously defended. (Greenwood and Levin 2001: 436)

The importance of the disciplinary structure as an organising principle for universities and as a cultural socialiser for academic staff is well researched (Becher and Trowler 2001; Henkel 2000). It is suggested that academics have far greater allegiance to their external disciplinary group than to their employing university. However, if a deeper understanding of the change process in universities is required, explanations have to be sought beyond this single perspective of the discipline. These may be found by examining the changing nature of academic work brought about by influences of the external environmental changes which follows.

Change and the nature of academic work

Implementing change in universities, made complex by the diversity of their organisational structures, is further complicated by the changing nature of academic work. This aspect is explored next in some detail because when the focus for change, in this case the adoption of e-learning, has a direct bearing on academic work and on the activities and emotions of individual academics, it is important to be sensitive to the social context when introducing change.

Universities are characterised by a unique value system displayed through the concept of 'academic freedom' (Birnbaum 1988; Kezar 2001a) that has traditionally afforded academic staff considerable autonomy over their own work. They have control over the curriculum they teach, the choice of teaching methods and over their research interests. However, recent surveys of academics' working conditions have revealed that this is perceived to be under threat (Taylor, T. et al. 1998; Taylor, P. 1999; Tytherleigh et al. 2005). The traditional collegiality of academic culture is also perceived to be in decline, as academics have suggested that a sense of isolation is the more predominant feeling. They feel isolated both from their colleagues and from the institutional goals (Nixon 1996). At the same time, academic careers have become more demanding and less secure, with many more temporary, short-term and part-time contracts in evidence, both in teaching as well as research (Blaxter et al. 1998). Within the traditional three areas of teaching, research and administration, a wider range of activities is being undertaken by academics (Kogan et al. 1994). These activities, sometimes regarded as 'non-core', lead not only to longer working hours but also to more fragmented time allocation (Mathieu 2003; McInnis 1996). Australian academics reported frustration with changes to their pattern of work where:

> the annual peaks and troughs of teaching and research have been replaced by a constant flow of demands for more public involvement in non-core work such as fee-paying summer schools, course marketing and consulting activities. (McInnis 1996:110)

Kinman et al. (2006) found high levels of psychological distress among academics, with a high number of working hours per week reported, often in excess of the weekly limit specified by the EU Working Time Directive of 1998. This is in total contrast to the experience of academics in the 1950s and 60s, as

reported by Martin's respondents, who enjoyed membership of a "prestigious and confident" profession during those years (Martin 1999: 7). These modern pressures seem likely to reinforce the status quo regarding teaching practice rather than encourage innovation, because there is so little time to reflect on and develop other options (Holt and Thompson 1995).

Furthermore, the increasing dominance of the research agenda has led to a perceived imbalance in status between teaching and research. This has led to a host of initiatives designed to place greater emphasis on professionalising teaching, including the establishment of 24 HE Academy Subject Centres and recognition and rewards for individual excellent teachers offered through the annual National Teaching Fellowship Scheme since 2000. A professional body, the Institute for Teaching and Learning in HE (ILTHE) was established and later incorporated into the Higher Education Academy (HEA), but how successful are these external incentives likely to be when the predominant motivator for the academic has normally been internal motivation acquired through the values associated with professional autonomy? Some suggest that the persistent erosion of academic autonomy and freedom is actually de-professionalising academic staff, leading to the proletarisation of the academy (Fulton and Holland 2001) and even that initiatives such as the HEA and the Subject Centres network, originally designed to enhance the status of teaching, are likely to result in even greater regulation and loss of autonomy. Discussing the Higher Education Funding Council for England's (HEFCE) review of Teaching Quality Enhancement that put many of these measures above in place, Deem summarises the situation by suggesting that:

> Academic work will have moved completely from a largely autonomous activity conducted under conditions of trust to one which is highly regulated and under scrutiny at all times. (Deem 2002a:5)

Although it might be expected that the growing emphasis on e-learning would contribute to enhancing the status of teaching as an element of academic identity, it appears that, far from being the case, it is actually contributing to the loss of academic identity. Professional identity is socially constructed through continual interaction between the individual and other members of their workgroup. So in the case of academics, membership of their discipline group

constitutes an important influence, but so also does the interaction with students that currently takes place predominately within the classroom (Knight and Trowler 2001), so anything that threatens that interaction also threatens identity. So, e-learning activities such as conversing with students using technology, delivering content through live or recorded broadcasts and developing the skills of rapid information processing (Blass 2001 cited Blass and Davis 2003), are far from congruent with the traditional, 'high touch' academic identity forged in the classroom.

E-learning is also threatening academic identity by contributing to the blurring of boundaries between academic and support roles. The growth of new roles such as study support staff, counsellors and learning technologists is blending the once simple distinctions between 'academic', 'administrative' and 'support' staff (Cuthbert 1996). The learning technologist, found both in central educational development units and in academic departments, has emerged as an important actor for change in the field of e-learning (Conole et al. 2007). Although it is now more common for academics to work in disciplinary teams to develop the curriculum and undertake or supervise research, the need for multi-professional teams, ie; academics, technologists, librarians and multi-media specialists, to work on the development of e-learning poses much more of a challenge to existing structures and boundaries within the organisation, especially when some members are in academic departments and others are in central services (Jones and O'Shea 2004). It has been suggested that the importance of the expertise of the IT specialist in these team-based e-learning development processes can be overstated to the extent that, from the perspective of the academic, control over curriculum development and delivery is in danger of being transferred from the academic to the technologist (Lisewski 2004; Taylor, P. 1999). The challenges posed to academic identity by e-learning are further developed later in this chapter.

This working context is important to consider when reviewing approaches to change management in universities and in understanding academics' perceptions of change associated with the introduction of e-learning. Despite the emergence of these wider social and organisational influences on academic work, they are often given less explanatory power than the disciplinary focus by

researchers when accounting for lecturers' behaviours. However, as I have proposed earlier, it is time to look beyond the disciplinary perspective because, as Trowler suggests:

> A greater understanding of academics' behaviour can be achieved by moving beyond the essentialist position adopted by many higher education researchers which gives explanatory priority to the epistemological characteristics of disciplines. Researchers also need to take account of the organisational, cultural and ideological characteristics of particular contexts and the interests and understandings of actors in them. (Trowler 1997:301)

Trowler goes on to note that this is important because much of the research into academic identity has been undertaken with high profile, research-active academics rather than academics in less prestigious universities whose work is oriented more towards teaching (Trowler 1998).

Support for strategies for change, including reward and recognition, have focused at the level of the individual academic, for example the National Teaching Fellowships, thereby increasing the sense of individual isolation, rather than focusing on the work group that is exemplified by the academic department (Knight and Trowler 2001). This should be the role of those who manage universities and lead academic staff, but the same turbulent working context is also affecting them. The next paragraph briefly reviews the impact of the sector changes on these groups of senior academic staff.

Academic leaders and change management: The role of the university executive and academic managers

In recognition of individual academic autonomy, the senior executive members of the university, the vice-chancellor (VC) and pro-vice chancellors (PVC), and heads of department, are normally portrayed as academic leaders rather than managers. Bargh et al.'s (2000) research provides a fascinating insight into the ways in which the nature of the VC's role might influence change management approaches. They found that the power base of VCs appears to be opaque and implicit, and that they work through negotiation to reach consensus rather than take unilateral decisions (Bargh et al. 2000). Shattock (2003) notes that with widespread distributed and individual decision making taking place in universities,

there is a need for the VC to make sure that decisions made are mutually reinforcing rather than needing constant reconciliation (Shattock 2003). He suggests that it is often more important for the VC to act in the role of retroactive legitimiser of strategy developed bottom-up, rather than acting as a charismatic leader. Yet at the same time, he also notes that successful universities engage in environmental scanning to take advantage of external opportunities, which involves acting quickly and taking risks, suggesting that a more entrepreneurial, business style of leadership is needed. In short, the role of the vice chancellor currently "is a role with tensions permanently at its core" (Bargh et al. 2000:161), with vice-chancellors:

> …forever grappling with the problem of culture and institutional personality, how to change something but not everything, to challenge but not destroy. (Bargh et al. 2000:129)

The role of the PVC is not one that has attracted much research until recently, when it has been suggested that they too have an ambiguous position in the organisation. As neither directors nor general managers, they "operate in the space between the academics, the professional services and the VC" (Smith et al. 2007:1) but their cross-institutional perspective gives them an important role to play in driving forward strategic change across the faculties. However, the research identified an interesting dynamic between the VC and the PVC, where the strategic influence of the PVC could be significantly affected by the strength of the VC's vision (Smith et al. 2007). Furthermore, research into university staff operating at the meso level, as head of department, has also identified tensions between leadership and management roles (Smith 2002).

Overall, it seems that the challenges to universities are repositioning their leaders at all levels as managers, which some individuals accept to the extent of adopting a management style that owes more to an earlier industrial age (Shattock 2003) while others resist (Deem 2002b). Those who resist may do so by subverting newer 'managerial' techniques used to manage change, such as devolved budgets and appraisals, and continue to adhere to the 'old ways' of persuasion and consensus-seeking, so that a hybrid version of managerialism has been found in use, where managers remain 'bi-lingual', using the new business language but retaining core academic values (Deem 2000b). This understanding

of the senior managers' position is important when considering the introduction of e-learning, because it has been noted over time that successful implementation requires total commitment from university leaders (Holt and Thompson 1995; Rossiter 2006):

> It appears that leadership committed to technological innovation as a central strand in the strategic positioning of their course offerings cannot harbour doubts or second thoughts about their chosen course of action. (Holt and Thompson 1995:54)

They have to be willing to make "serious choices" about resource investments (Salmon 2005:204). Yet it is a complex role to sustain, one that requires them to:

> …make key financial, human resource and structural decisions and continue to stimulate, provoke, cajole and even, at times, coerce different academic groups to move in the desired strategic direction. (Holt and Thompson 1995:62)

This review of organisational structures and academic work has identified that universities are devolved organisations with multiple authority structures. Once autonomous academics, owing stronger allegiance to external disciplinary alliances than the organisation they work for, are finding that their traditional identity is under threat from changing working practices and external perceptions about the broader social and economic role of higher education. However, as already suggested, the extent to which findings from research undertaken in elite universities may be applicable to other types of university may be contested (Trowler 1998).

An ambivalent approach to management is evident among senior academic leaders and external pressures for change are continual. The stage is set for many change management dramas to be played out, but this seems more complex than any traditional business organisational model, so how are universities coping? What are the implications for academics and their leader/managers? In the following paragraphs, the drama associated with the introduction of e-learning is revealed in greater detail, in order to illustrate more clearly some of these tensions around change management in universities.

Implementing e-learning: stage or battle ground?

As discussed earlier in this chapter, the introduction of new information and communication technologies (ICT) is one of the many change drivers affecting universities, but one facet of this domain, e-learning, provides the platform for revealing in greater detail the tensions associated with change management in universities and the need to find an appropriate change model. Heralded as the answer to many of the sector's challenges, it has all the ingredients of a major drama; principal actors threatened with loss of their academic identity; increasingly blurred boundaries between traditional academic roles and new professional roles such as learning technologists; 'lone ranger' academics with the expertise to adopt e-learning autonomously without regard for any institutional policy; a principal change agent often sited within a central service and in a less powerful position in the organisational hierarchy than those in the academic departments; and a need for the change to be overtly supported by senior management who are themselves under pressure to 'manage' rather than 'lead'.

The promise of e-learning: releasing the potential

Case studies illustrating the successful implementation of e-learning mostly report a dual approach to change management, recognising the importance of highly visible top management support and strategic decision making, coupled with the need to accommodate the autonomy of individual academics and to work collegially with academic departments (Holt and Thompson 1995; Jones and O'Shea 2004). The 'recipe' that is normally advocated begins with the senior managers of the university identifying a role for e-learning in meeting the challenges facing the institution or in achieving their vision for the university as a leader in flexible learning. This is followed by a collegial approach to implementation to secure consensus and commitment to change. However, the messy processes that happen on the way to successful implementation, or indeed unsuccessful implementation, go largely unreported (Clegg et al. 2003; Cornford and Pollock 2003).

Various mechanisms for bringing about change in the strongly decentralised academic culture are evident in the cases. Initially, top level strategies, policies

and processes such as learning and teaching or e-learning strategies may be put in place (White 2007). This is followed by a range of actions designed to engage staff commitment. Scenario planning, for example, has been used successfully to engage staff in strategic planning for change, but in this highly structured account of how well it went, little of the messy reality is disclosed, except for hints about the need to exercise control, such as the following:

> Whilst the involvement of staff has benefited the university, *involving too large numbers of staff can have a disadvantage.* (Author emphasis) (Richards et al. 2004:358)

In another case, the university developed a strategic plan that included e-learning through a combination of deliberate, top-down strategic direction-setting with bottom-up support for early adopters (Jones and O'Shea 2004). However, when the opportunity arose, afforded by winning a large amount of European funding for a specific e-learning project, the university bought in external learning technologists who had expertise in the design of e-learning, thereby appearing to circumvent any issues associated with changing academic roles rather than addressing them.

Academics' fears that an increase in flexible delivery using e-learning might threaten their identity and reduce their effectiveness as teachers can be allayed by taking an incremental approach to change and by focusing on the aspects of the innovation that support student learning (Hart et al. 1999). However, even with this careful approach there may be some difficulties in implementation:

> Restructuring organisations, particularly universities, with their fierce defence of territories, is not without pain for many individuals. Tempering fear and re-working job responsibilities, promoting team responsibility and collaboration while maintaining morale, demand time-consuming negotiation processes which require sensitivity on the part of senior management. (Hart et al. 1999:52)

In contrast to the strongly management driven experience offered by Jones and O'Shea (2004) above, a combination of a top down policy statement about the change followed by bottom up, tailored approaches within individual faculties is another possible strategy that accommodates the devolved nature of the university. Bottomley et al. (1999) demonstrate that even with a corporate steer

to develop e-learning, different approaches can be taken within faculties to accommodate a strongly decentralised academic culture and even within these sub units of the organisation, there can also be a mix of management driven and collegial approaches evident. In one faculty, top down decisions were made by a committee composed of early adopters, but the pedagogic rationale for the use of e-learning became obscured by the focus on the technology in staff development workshops. This is to be expected when change strategies are led by a group of e-learning users who would be referred to as innovators in the innovation adoption and diffusion model (Rogers 2003), as discussed later. In another faculty the approach was to "let a 1000 flowers bloom", but this resulted in limited dissemination across the faculty because the innovations did not fit the existing practice of many other colleagues. In a third faculty, change management was based around an online staff development programme in support of curriculum re-design, but slow progress resulted because academics resented the lack of collegial ownership in the programme that had been developed centrally.

An alternative to the broad collegial approach to gaining consensus is to encourage individual innovation by the "lone rangers" or e-learning enthusiasts. However, in the longer term, this is unlikely to be successful in achieving widespread change as demonstrated in the previous case (Bottomley et al. 1999). Lone rangers tend to work in isolation from their colleagues, they are not team players (Taylor, P. 1998). If they are supported, they may eventually request a level of support that is not sustainable, which can lead to the derailment of the policy because their needs are not the same as those of the majority (Geoghegan nd cited Johnston and McCormack 1996; Taylor, P. 1998). The expertise of the lone rangers is often so advanced compared with their colleagues and they invest so much personal effort in their innovation that they can turn colleagues against the innovation, particularly if they emphasise the technology more than educational issues (Johnston and McCormack 1996). Their fascination with the technology rather than the pedagogy also means that lone rangers frequently fail to achieve a final product, thereby wasting university funds provided for their projects (Bates 2000).

However, "scaling up from the pioneers" can be a successful strategy if the appropriate institutional support structures are put in place (Collis and De Boer

1999). The challenge with this approach to change is to find a strategy that encourages the innovators to let go of their technology to enable it to be made useable by a broader range of less technically-minded staff, without demotivating the originators (Holt and Thompson 1998). It is therefore important to recognise the differences in motivation between the innovators and the mainstream and for central services supporting e-learning to ensure that they encourage effective communication between innovators and the mainstream (Hagner 2000).

Brown (2002) describes the attempt by one university to move on from individual early adopters. A top management decision was made to establish an electronic campus to enhance flexibility of teaching and learning on-campus. Funding was put into enhancing a central unit to support this development, specific individuals were allocated to each faculty to work with academics and a standard e-learning platform was agreed. Although this strategy achieved quick gains, as a top down, ring fenced activity it was separated from the mainstream university processes and when the time came to embed it into the mainstream, it required greater commitment of resources by Deans of Faculties than they were prepared to allocate. Eventually the central team was disbanded. This again demonstrates the power that middle management has to disrupt top management driven initiatives in a devolved organisation.

Organising and providing effective support for academics is often cited as an important factor in achieving collective change that has an impact on the whole organisation rather than just on individuals, and in particular, approaches that build on the principles of situated learning (Brown et al. 1989 cited Taylor, J. 2003). Successful support strategies have included utilising academics from across the university to develop the programme, either in support of, or instead of, a centralised staff development unit (Bennett and Bennett 2003; Taylor, J. 2003) or by having central support staff actually taking up residence in the faculty and working on a one to one basis with academics (Jones and Lewis 1991). Alternatively, school-based learning technologists enable support to be contextualised in response to local demands and to be embedded within disciplinary concerns about the applicability of e-learning (Holt and Thompson 1995; Sharpe et al. 2006). Whichever approach is used, providing support for e-learning is bound to challenge traditional approaches to staff and educational

development provided by central units, from where the push towards e-learning is often perceived to come.

There is a tendency in many of these studies written in the managerial discourse to blame the individual adopters and attribute delays or failure in implementation to an oversimplification of negative attributes, ill-will, indolence, ineptitude or indiscipline on the part of those at whom the change is aimed (Trowler and Knight 2002), or to portray resistance as 'irrational' (Arnaboldi and Azzone 2005:562). For example, Bottomley et al. assert that academics generally hold conservative opinions concerning the nature of teaching and learning and that they are "conservative and sceptical of change" (Bottomley et al. 1999:245). Bennett and Bennett refer to the "acute" problem of academics not engaging with e-learning and complain about their "reluctance to embrace technology" (Bennett and Bennett 2003:2-3). Littlejohn and Sclater suggest that academics have a limited grasp of pedagogical issues generally (Littlejohn and Sclater 1999), although Taylor suggests that it is more likely that academics do not have access to an appropriate pedagogic language to articulate their teaching practice to others outside the tribal boundary of their discipline, which leads to the perception that they are being obstructive of change (Taylor, P. 1999), whereas they are actually raising valid points about its impact on their teaching. Gilbert's research, another ethnographic study, actually identifies a richer picture of divergent views and institutional sub-cultures, where the perceptions of different stakeholders about the reasons affecting adoption of ICT vary according to whether the respondent is an academic, technician or senior manager (Gilbert 2001; Gilbert and Kelly 2005). This supports the findings of Haywood et al. (2000) that academics' reluctance to use technology is more often cited as a reason for lack of adoption by educational developers than by the academics themselves. These negative portrayals of academics say more about the ways in which the researchers themselves have responded to the cultural worlds of their respondents and may not necessarily be appropriate claims to make about the situation (Holliday 2002) or they appear to privilege the discourse of the educational developers acting as change agents over the local disciplinary discourse in a way that has been described as 'colonial' (Manathunga 2006). This view is also confirmed by Fanghanel who suggests that a form of domination has arisen as a result of research into conceptions of teaching not allowing for academics adopting a

position on pedagogy as a result of their identification with or resistance to values or ideological frameworks:

> Issues such as power, room to manoeuvre, pressures on university lecturers to teach certain skills and behaviours are not explored. (Fanghanel 2007:6)

This discrepancy between the publicly stated position and the lived realities of academic adopters deserves to be explored further, a proposal supported by White's (2007) study which identified the importance of contextual analysis in understanding how best to manage and sustain e-learning change in universities.

Whose potential? the threat of e-learning

Although some studies do give priority to understanding and accommodating individual responses to change, the messiness on the ground and the lived reality of change as experienced by academics is less often exposed by the research. The academic's voice is often presented through the stories of enthusiastic innovators and early adopters who write up their own innovation activities with their students (for example: Bracher et al. 2005; Fu-Yun Yu et al. 2005; Hulshof, et al. 2006; Rutter 2006). A few studies give a glimpse into the lived realities of another group of academics who are coping with mandated use of e-learning or who have been adversely affected by the innovation. They claim that the introduction of e-learning through a management driven initiative in which learning packages are developed by learning technologists has resulted in academics being:

> …relegated to the role of knowledge workers whose primary task is to connect students with information. Knowledge cannot be managed separately from those people who have formulated the intellectual basis to that knowledge. (McMurray 2001:77)

This approach to managing e-learning threatens academic identity by removing from academics the intellectual capital created by them and packaging it so that it can be delivered to students without the mediation of the academic, or through the mediation of a less expensive teaching assistant.

Another university's determination to move all of its units online in order to gain market advantage resulted in academics feeling de-skilled by the introduction of e-learning and "re-positioned" by the technology (Wells 2005:17). Wells reports that academics in her study were "offended" by the rigid structure of the imposed e-learning platform that was "driven by regulation rather than good pedagogy". One respondent reported that she was in danger of losing her "teacher presence" and that the VLE threatened her confidence. Another respondent claims that although e-learning was introduced to save money, he is aware of a "continual increase in the number of non-academic staff in the university" (Wells 2005:15). This rare glimpse into the messy nature of change as it affects academics contrasts sharply with this bland yet threatening assertion about their future potential role:

> Lecturers will become learning facilitators, co-ordinators of learning experiences and this shift will have dramatic implications for human resources strategies. (Jones and O'Shea 2004: 393)

I therefore agree with the position of Lisewski (2004) who confirms the impression given by these studies, which is that, overall, much of the literature on strategic change management approaches to introduce e-learning presents

> …rather unsophisticated perspectives on the nature of organisational culture and how to achieve effective cultural change …[which] … tend to characterise university organisations as culturally rather simple and uniform. (Lisewski 2004:176,177)

His own research demonstrated the need to recognise universities as fragmented domains of factions or collections of groups and to have clear rationales for change, effectively communicated but contingently localised (Lisewski 2004) as the university embarked on a strategy that was a combination of a management driven approach incorporating collegial involvement. Getting this balance right is obviously difficult, as revealed by a survey of staff at the University of Adelaide into the factors affecting non-adoption of e-learning, since one of the recommendations arising from the survey was to encourage their IT Services department:

> …to work actively to dispel the notion that it is autocratic and non-consultative, and to change the notion in some areas of the University that ITS 'delivers' without adequate consultation of needs, requirements and sectional differences. (Shannon and Doube 2003:41)

These cases have revealed a range of approaches to implementing e-learning and the possibilities and problems afforded by the changes associated with it, but what change management model can be used to explain the complexity of the change associated with the introduction of e-learning that covers all the actors? As Summerville (2005) asks, is it possible to find a change model for HE that "enables the enterprise and its institutions to both survive and thrive?" (Summerville 2005:293). The following paragraphs outline a number of options by briefly considering the major paradigms of change management models in use and then developing the case for using the one which will be demonstrated to have greatest explanatory power for this research.

Approaches to managing change in organisations

A range of theories and models with which to consider organisational change is available, I have grouped these approaches under two paradigms, the 'modern paradigm' that includes approaches derived from a positivist ontological perspective and the 'post-modern' paradigm that includes approaches derived from the interpretive tradition, including organisational development, contingency theory and diffusion theory.

Modern paradigm approaches to change management

The modern paradigm (Darwin et al. 2002), or technical-rational (TR) (Trowler et al. 2003), approach to change is centred on concerns for control based on rational arguments and predictable situations. It originates from the positivist foundations of Cartesian-Newtonian science that dominated thinking in the 19th Century and emphasises deductive, rational thinking. Since human beings are rational individuals, it argues, change can be planned and implemented through a systematic approach to identifying and enacting a logical pattern of events. It provides a rational, three step plan for achieving change. The need for the change and its associated objectives are identified, the available options and their associated performance measures are determined, and finally, the selected option path is implemented (Senior 2002). This approach provides those

managing change with a sense of control over their environment and privileges their knowledge. It is often characterised as being a 'top-down', management-driven approach to change, planned and executed by those with expert knowledge of the innovation being introduced. It uses the language of engineering, systems and resources to emphasise its power to control and manage change, as exemplified by Ford et al.:

> The *Learning Environment Architecture* provides a method for developing and managing learning environments to support the current and changing role of higher education in the United Kingdom…the resulting architecture is designed to cope with changes which will occur in the future, for although not all change can be foreseen, the architecture can be used to control specific events such a planning a new organisational structure, redefining a strategy or establishing a procurement policy. (Ford et al. 1996:2)

This approach to change management is appropriate in situations where boundaries are closely defined, organisational systems are simple and agreement on common objectives exists among individuals in the organisation, however, it becomes less satisfactory for implementing change in more complex situations when external environments are more unpredictable (Senior 2002).

Despite recognition of the limitations of the technical-rational approach in other sectors, there has been a marked growth in its use in higher education since the early 1990s. An expectation that this approach to managing change will be adopted is evident in funding council and quality organisation strategies from the 1990s onwards (Watson 2000; Trowler 2002). Dunkin notes that universities are being encouraged to adopt management-driven practices that were common ten years ago or more in the private sector at the same time as many businesses are beginning to adopt some of the organisational characteristics and collegial employment practices of universities (Dunkin 2003).

However, despite this growing emphasis on its use as an approach to change management in universities, there are significant reservations about its effectiveness in securing effective change in these organisations. The previous review of the organisational characteristics of universities demonstrates why this is so. They are too loosely coupled and the predominance of indirect chains of

command and professional autonomy encourages a dilution of purpose and vision.

Furthermore, professional identity and expert skill are closely linked in academic work, so academics are unlikely to be persuaded by rational arguments to consider any change that threatens this identity. They have a strong personal attachment to the status quo and an emotional investment in retaining their current practice, so are likely to resist change that threatens this with an emotional response (Knight and Trowler 2001). This is even more likely when working under stressful conditions as discussed earlier in this chapter.

This does not make the TR approach an appropriate model for explaining change management in e-learning. However, as we saw earlier, it clearly is an approach that has been used to drive the introduction of e-learning in those universities where senior managers favour a more overt top-down approach. As a separate development outside the normal curriculum development process, it has had some success but this appeared to be short-lived. These accounts are frequently reported after the implementation and tend to be written from the standpoint of the successful implementers who adopt an implicit technological determinism (Cornford and Pollock 2003) and attribute delays or failures to the intransigence of academics. The autonomy associated with academic work can give some academics who have the technical skills the freedom to do e-learning on their own, but at its worst, mandated use alienates the mainstream majority (McMurray 2001; Wells 2005).

In change contexts where the varied perspectives of all those affected by the change and the legitimacy of their contribution to planning and implementing change, needs to be recognised, or in situations where there is little agreement on what needs to change or on how the change should be implemented, an approach that recognises and attempts to accommodate a diversity of viewpoints is needed. Two such approaches are outlined in the next paragraphs. These change models move away from positivist, management-driven interventions towards a contingent approach that emphasises reading the context.

Organisational development

An emphasis on culture and consensus is a strong feature of the organisational development (OD) model of change (Senior 2002). The work of theorists such as Lewin and the technique of force field analysis are used in change management programmes to incorporate the views of those involved in change and secure consensus on the way forward (Dawson 2003). However, despite a greater recognition than the technical rational approach of the complexities of the change context, the OD model still tends to assume that change is mono-dimensional and that it can be planned in a series of sequential steps (Aldag and Stearns 1991 cited Dawson 2003). The OD approach to change management is often a lengthy process involving small incremental or evolutionary changes. For example, Arnaboldi and Azzone (2005) describe an incremental process of change in an Italian university that took place over four years. OD processes are aimed at delivering long term improvement in the performance of the organisation, rather than a large scale, rapid transformational change in response to external pressures. This approach can allow an organisation to lose sight of its overall position in the market. Furthermore, although consultative, the OD approach is still usually driven from the top, often involves the use of external rather than internal change agents and does not readily recognise the part played in the change process by those managing the change (Woodward and Hendry 2004).

Contingency approach

In contrast to the apparent inflexibility of the OD approach in periods of rapid change, the contingency approach to change management suggests that managers should consider change strategies that are dependent on the situation and be prepared to change approach if the prevailing model has outlived its usefulness. Successful organisational change can include both incremental OD style approaches and rapid, directive approaches to secure transformative changes. Coercion and collaboration can be complementary strategies in the same organisation, when for example, a directive style can be employed at the senior executive level where the change is planned and, at the unit level where the change has to be implemented, middle managers can employ a consultative

style of change management. (Dunphy and Stace1993; Dunphy 1996; Stace 1996).

Both the OD model and the contingency approach reflect a more 'common sense' view of how change is actually managed by those tasked with supporting and implementing it. They are the most commonly reported approaches to implementing e-learning. In addition to it being reported as a strategy in the cases above, it also becomes evident when it is reported that it is not uncommon for one university to have several different VLEs which have been purchased by different departments or central services (Browne and Jenkins 2003), demonstrating an incremental approach to introducing e-learning where decisions have been made by different autonomous departments rather than as a results of one central decision.

Management-driven change models suffer from problems in sustaining an innovation once it has been introduced because the management sponsors are too far removed from the reality of those affected. On the other hand, a contingent approach can provide a model for greater flexibility of response, but it can also encourage the mixing of ideas from different theories that may result in a somewhat haphazard change experience. However, neither of these approaches offers a sufficient range of lenses through which to understand change associated with e-learning in universities, for a number of reasons that I discuss next.

The complexity of universities' organisational structures and their multiple power hierarchies makes it difficult for senior managers to mandate the adoption of e-learning, beyond approving its initial introduction into the organisation. Even when they do give it their support, the collegiality of the power relationships in the organisation makes them seek a more consensual process of adoption which has implications for the actions of the change agents tasked with its introduction. For those most affected by the introduction of e-learning, the academics who are expected to change their approach to teaching in order to engage with it, the introduction of e-learning holds both uncertain promises and potential threats. A model is needed that accommodates exploration of adoption at institutional and

individual levels, that enables the perceptions of actors to be explored and then identifies how best to build on the strong organisational tradition of professional identity and communication through collegial networks. It is proposed in the following paragraphs that the innovation diffusion model is most appropriate in this context.

Innovation diffusion theory

Innovation diffusion theory is grounded in the discipline of sociology and recognises the importance of understanding change as a social process rather than an event. As an approach to change management to rival TR, OD and contingency theory, it offers considerable possibilities that overcome the problems associated with those models discussed earlier. An innovation is defined as "an idea, practice or object that is perceived as new by an individual or other unit of adoption" (Rogers 2003:12). It does not have to be objectively new; the newness is subjectively assessed by the individual adopter:

> The diffusion of innovations is essentially a social process in which subjectively perceived information about a new idea is communicated from person to person. The meaning of an innovation is gradually worked out through a process of social construction. (Rogers 2003: Preface xx)

The diffusion process is composed of four main elements, the innovation itself, the communication channels through which information about the innovation is disseminated, the length of time it takes for individuals to decide to adopt, and the social system within which the individual adopters are located (Rogers 2003). From these elements arise the key aspects that are most frequently the subject of research. The innovation itself is attributed with five characteristics that affect its adoption; relative advantage, compatibility, complexity, trialability and observability. The communication channels include mass media or interpersonal channels, or networks, between individuals. The length of time it takes potential adopters to make the decision to adopt leads to the definition of categories of adopters depending on their degree of innovativeness. The names of these categories are familiar to researchers as innovators, early adopters, early majority, late majority and laggards. Finally, the nature of the social system affects diffusion through its communication channels and its norms of behaviour,

including the extent to which individuals can influence the behaviour of other members of the system.

Arising from these elements, this model offers four specific advantages for research into change associated with the implementation of e-learning in universities. It encourages the researcher to access the viewpoints of all those affected by the change; it allows the messiness of the change process to surface; it allows for analysis to be undertaken at the level of both the individual and the institution; and finally, it allows the voice of the change agent to be heard.

Place of diffusion among adoption models

Innovation diffusion theory is one of a number of adoption models used in IT research to assess the potential levels of acceptance of a new technology by its users. Each model favours a different yet overlapping set of factors that determine acceptance. Venkatesh et al. (2003) assessed the similarities and differences of eight models with a view to assessing their explanatory power, acknowledging that:

> Researchers are confronted with a choice among a multitude of models and find that they must either "pick and choose" constructs across the models, or choose a "favoured model" and largely ignore the contributions from alternative models. (Venkatesh et al. 2003:426)

One of these adoption models used in researching the acceptance of e-learning is the Technology Acceptance Model (TAM) that was specifically designed for IT innovations and information systems environments (Davis 1989). It suggests that two variables affect the adoption of an IT innovation, how easy it is to use and how useful it is perceived to be. It has been used to evaluate the use of e-learning with students (for example: Drennan et al. 2005; Kelleher and O'Malley 2006) and with academics (for example: Segrest et al. 1998). In these cases, however, the contexts were relatively simple when compared with the introduction of e-learning in a devolved organisation, so the model was not considered to have sufficient explanatory power for this research.

Although Venkatesh et al. (2003) derived a Unified Theory of Acceptance and Use of Technology from their review, its focus is still on the acceptance, or adoption, of innovation by individuals. Innovation diffusion theory, as developed by Rogers (2003), offers a far wider range of variables to consider relating to adoption and diffusion, and therefore provides many more lenses through which the diffusion of the innovation may be explored, which I will outline in the next few paragraphs.

The two variables most frequently used to research technology acceptance in the diffusion model are the characteristics, or attributes, of the innovation itself and the categories of adopters who make the decision to use the innovation. The five attributes of an innovation that contribute to its adoption by individuals, as identified above, include complexity, trialability, compatibility, relative advantage and observability (Rogers 2003). If these are considered with reference to an innovation such as e-learning, they can offer a useful framework for analysing barriers to adoption that could be used to plan an implementation strategy to overcome them. For example, compatibility takes into account the extent to which the innovation appears consistent with the potential adopter's values and philosophy, so the fact that e-learning appears to reduce or remove face to face contact between academics and learners may not be compatible with an academic's preferred pedagogic approach for student-centred interaction in the classroom.

The second variable most widely cited as a major factor affecting adoption of an innovation is the individual predisposition towards innovativeness of the potential adopters. This is evident through the time it takes adopters to make the decision to adopt. Adopters are categorised into five categories, Innovators, Early Adopters, Early Majority, Late Majority and Laggards, and by identifying the time it takes members of each group to make the decision to adopt, research has led to the identification of the bell shaped 'adoption curve' (Figure 1) that shows the frequency of adoption over time.

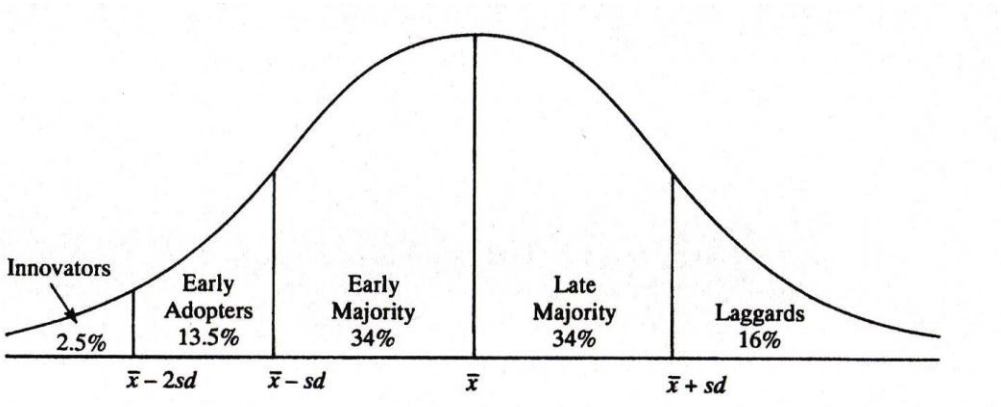

Figure 1 Adopter categorisation (Rogers 2003:281)

Rogers advocates a different strategy for engaging each category's members with the innovation (Rogers 2003). These categories provide a useful framework for evaluating the perceptions of academics towards e-learning in order to gain deeper understanding of their position and identify initial support that should be provided to encourage adoption. However, from a central change agent perspective, identifying different strategies suitable for each category is a time consuming approach and has other limitations in respect of communication networks, as highlighted below. Researchers can also get the classification of adopters wrong (Rogers 2003:194).

Rogers acknowledges that the term 'Laggard' is unattractive and could be construed as derogatory, but he stresses that it is not meant to be disrespectful, nor should it imply that laggards are to blame for being late to adopt; it would be more appropriate to look for blame within the system rather than the individual (Rogers 2003). It also has been suggested that a gap, or chasm, can open up between the Innovators or Early Adopters and the remaining potential adopters and that specific strategies should be used to close the gap (Moore 1991). Moore's assumptions are cited by several authors on e-learning, (Geoghegan 1998; Conole et al. 2007) who suggest that change management in support of e-learning should focus on closing the 'chasm'. However, Rogers dismisses this suggestion, asserting that there is no evidence from research of a defined gap or break in the adoption curve that creates the need for specific interventions to overcome it:

> Past research shows no support for this claim of a "chasm" between certain adopter categories. On the contrary, innovativeness, if measured properly, is a continuous variable and there are no sharp breaks or discontinuities between adjacent adopter categories (although there are important differences between them). (Rogers 2003:282)

Alternatively, focusing on the innovators and early adopters of e-learning is also another approach found in e-learning change management programmes (Collis and De Boer 1999; Brown 2002), which is an attractive strategy for managers because these groups are receptive to new ideas, but as was reported earlier, it is not always a successful strategy (Bottomley et al. 1999). An explanation for this offered by diffusion theory is that:

> The most innovative member of a system is very often perceived as a deviant from the social system and is accorded a status of low credibility by the average members of the system. (Rogers 2003:26)

The diffusion model has been cited in numerous e-learning studies (Bennett and Bennett 2003; Bottomley at al. 1999; Conole et al. 2006; Geoghegan 1998; Zayim et al. 2006) but they focus mainly on one aspect, that of the adopter characteristics, despite the fact that the model includes many other elements which are less frequently explored in the e-learning literature, yet have as much potential to provide a rich picture of the change process in a complex organisation like a university. These other elements include those relating to the organisation itself and its social networks, both areas that Rogers suggests would warrant further research (McGrath and Zell 2001), and the role of the change agent. I outline these elements in the next few paragraphs.

Innovation diffusion in organisations

As we have seen, the introduction of e-learning presents many challenges for a university and diffusion theory is proposed as a conceptual framework to explain what is happening during the process of implementing e-learning, not only because it offers variables associated with individual adoption, as discussed earlier, but also because it offers dimensions to explore at the organisational level, which as Rogers notes, is a far more complex process than individual adoption (Rogers 2003:403). In studying the process of adoption and diffusion of

an innovation through an organisation, it has been found that, in addition to the perceived attributes of the innovation such as its observability, complexity and perceived risk, other dimensions including the decision-making processes within the organisation and a five-stage adoption process shape the progress of implementation. Within these dimensions certain other organisational variables have an impact, such as the extent to which the organisation is centralised or devolved, the leadership styles of those involved in supporting and implementing the innovation and the social networks through which information about the innovation is disseminated (Rogers 2003).

Types of innovation-decision

Three types of innovation-decision are associated with organisational innovation decision making, with a fourth type dependent on a sequential interaction between two or more of these three. An optional innovation-decision is a choice made by an individual independent of other members of the organisation. For example, an academic in a university who decides to create a web-site to provide his/her students with access to his/her teaching resources, because s/he has the skills and knowledge to do this, is demonstrating this type of innovation decision making. A collective innovation-decision is a choice to adopt made by consensus among members of the organisation. This choice might be exercised, for example, when a university decides to purchase a particular VLE after widespread consultation among academics about the options. An authority innovation-decision is made when relatively few members of the organisation have the power or technical knowledge to decide to adopt without reference to other members of the organisation. An example of this in action is when the decision to purchase a VLE is made by the university's IT department. The fourth type of innovation-decision, a contingent innovation-decision, is exercised by an individual in the organisation only after the organisation has decided to adopt the innovation. Unlike the optional innovation-decision example above, where academics can begin using e-learning if they have a reasonably high level of technological ability themselves, many academics are only able to make a decision to use e-learning after the decision to purchase the VLE has been made elsewhere in the university. This latter type of adoption decision is likely to be the one most commonly experienced in universities.

Innovation diffusion in decentralised organisations

In a decentralised organisation it has been shown that innovation diffusion is likely to be very closely geared to meeting local needs in response to specific problems. Decisions about adoption are made locally and the innovation may be subject to a high degree of local adaptation. The devolved nature of a university suggests that this pattern is likely to be observed. As with the strategy of encouraging individual e-learning innovators, encouraging innovative departments to forge ahead with their own e-learning developments can promote early wins but then cause problems later on when they may require a specific type of technological solution that is not applicable to the majority (Holt and Thompson 1995) or the strategy requires a change of direction. For example, there may be tension in the university if a highly centralised e-learning strategy is proposed in order to achieve greater technical convergence and efficiencies, especially following a period of decentralised growth that had led to uneven development of e-learning and the emergence of isolated pockets of innovation.

Innovation champion

In any type of organisation, an active innovation champion is also very important to the success of the diffusion process. This is usually a role played by senior managers who throw their weight behind the innovation and are in a position to co-ordinate the actions of others within the organisation (Rogers 2003). Their clearly communicated messages of support for the innovation have been shown to encourage adoption within organisations (Gallivan 2001), especially if the innovation is costly, radical and associated with a high degree of uncertainty for potential adopters, or capable of disruptive rather than incremental innovation (Assink 2006). Another study found that usage of technology for distance education increased among those academics who perceived that others in influential positions supported its use (Segrest et al. 1998). However, with e-learning, as identified earlier, this commitment to act as champion may initially have to be based on acts of faith rather than on proven advantage, with all the attendant risk attached to that position. Transformational leadership traits and a positive attitude to risk taking have been found in champions of technological innovation (Howell and Higgins 1990).

In the university organisation, the innovation champion could be the vice-chancellor, who is in a position to ensure that decisions made about the innovation are mutually reinforcing (Shattock 2003) and that there is a strategic vision driving investment in technology (Bates 2000). However, the ambiguous nature of the vice chancellor's role in a devolved university structure and the recent tensions that have been observed between the demands of a managerialist approach and a need to operate collegially, may make them less likely to be risk takers. If this is the case, their ability to act as innovation champion may be compromised, as we shall see later on in this study.

Alternatively, the innovation champions may be found among the middle managers of the organisation who redefine the innovation to encourage its local adoption in their units. In universities these could be Heads of Department but they also are subject to the tensions between managerial demands and collegial preferences that may restrict their actions (Smith 2002).

Innovation diffusion through social networks

Rogers' claim that innovation diffusion is essentially a socially constructed process is evidenced by the importance attached to horizontal social networks in organisations for encouraging adoption and diffusion. The strategy of using peer contacts to engage academics with e-learning has been demonstrated (Holt and Thompson 1995; Sharpe et al. 2006) and the importance of social networks noted:

> Networks create sources of power which can sweep through an organisation and develop momentum for large scale organisational change. (Holt and Thompson 1995:63)

However, this aspect of innovation diffusion through social networks is rarely explored directly in research on the implementation of e-learning. Perhaps this is because a key point in the diffusion of an innovation is gaining a critical mass of adopters, or a sufficient number to sustain the innovation to prevent it perishing,

and in a university, this may be a politically charged issue, as some authors have noted:

> Educationally powerful new technologies can quite simply wither on the vine if the politics of diffusion are not handled correctly. (Holt and Thompson 1995:62)

Diffusion across an organisation is driven through persuasion arising from interpersonal communication between near peers in social networks (Rogers 2003). Homophily and heterophily, (first referred to by Lazarsfeld and Merton 1964: 23 cited Rogers 2003) are key characteristics influencing who communicates with whom. Homophilous social groups share certain attributes such as beliefs, status and education, heterophilous groups do not. Communication between individuals in homophilous groups is more likely to be frequent and effective, although a degree of heterophilous contact can either help or hinder diffusion. It was found that levels of adoption of computer-related services innovations by academics were not increased through homophilous friendship networks (Durrington et al. 2000), because a high degree of homophily can actually act as a barrier to innovation, since members of the group are not being challenged by different ideas brought in from outside the group.

So, for example, if the opinion leader for an e-learning innovation has a better technical grasp of its features than other members of the group, and so is heterophilous in that respect, but is homophilous in other aspects such as education and status, e-learning is more likely to be adopted. If, in addition to their technical knowledge, the opinion leader is also heterophilous in these other aspects, e-learning is less likely to be adopted. This would appear to favour a strategy of using the innovators and early adopters in a department to promote diffusion of e-learning because they have greater technical knowledge, however, if they are also 'lone rangers' it is less likely to be successful because they are not members of social networks that encourage diffusion.

It has also been shown that the position of individuals within a social network has an influence on diffusion. If adopters at the periphery of the network have links with other potential adopters in other networks, this creates a pressure point at

the boundary between two sections of the network that can increase diffusion (Abrahamson and Rosenkopf 1997), which again suggests that a diffusion strategy that relies on lone rangers with few network connections has limitations.

These are highly relevant issues in devolved organisations like universities, where although an authority innovation-decision to adopt an e-learning system may have been made at the corporate level, the actual use of e-learning cannot be easily mandated. Its subsequent use is contingent on being adopted by individual academics who are prepared to change their approach to teaching. It may not even be possible to use the innovators and early adopters to encourage diffusion if, as seen earlier, they are too heterophilous in their level of technical knowledge or have too few social contacts.

The role of the change agent in innovation diffusion

The final element of the diffusion model that I have selected to focus on as having explanatory power in researching the introduction of e-learning in universities is the role of the change agent. This role is to organise and undertake interventions on behalf of the agency promoting the innovation in order to influence innovation-decisions made by the potential adopters "in a direction deemed desirable by a change agency" (Rogers 2003:366). This is likely to involve a number of steps, from developing an awareness of the need to change, to exchanging information about problems and alternative solutions, encouraging intent to change and finally sustaining the adoption. A number of factors have been identified that contribute to their success as change agents, in particular, the extent to which they are homophilous with their clients, although this can also be problematic. The degree of similarity in background and socioeconomic status encourages the change agent to make contact with individuals who are most like themselves because they are easier to communicate with. However, this may result in the change agent not being in contact those who most need their help. Another important success factor is having empathy with the clients' needs and allowing innovations to flourish that are highly compatible with their needs but this again may lead to unexpected consequences, even to the extent of diverting the change programme from its intended outcomes (Rogers 2003).

Change agents frequently make use of opinion leaders to secure innovation diffusion and adoption. These are influential individuals at the centre of a communication network which serves to channel communication about the innovation to potential adopters and are "members of the social system in which they exert their influence" (Rogers 2003:27). They can be effective in situations where the change agent is external to these communication networks and social systems or where the change agent has limited resources (Rogers 2003)

The promotion of e-learning innovation in universities is frequently undertaken by members of educational development units acting as change agents on behalf of senior managers, the change agency. If the units' members are external to the potential adopters in the academic department, and therefore heterophilous in nature to the academic group, the influence of social networks, the change agent's membership of them and their use of opinion leaders, would appear to be important factors in diffusion in this context. The tensions that might arise could usefully be explored and exposed in order to add further explanation to the diffusion process in universities.

The diffusion of innovation model has been criticised for being too linear in considering change processes. It has been regarded as too simple for use in examining the complexity of e-learning in higher education (Salmon 2005). Furthermore, its lack of focus on the adopter's personal sensemaking during the process of adoption has led to accusations of it viewing the adopter simply as a 'black box' (Pereira 2002). However, as I have already noted, these and other studies have relied on only one or two of the elements of the model. My study, revealed through the remaining chapters of this work, discusses the extent to which these criticisms are justified or whether the model does have explanatory power in the case of e-learning in universities.

Development of the research questions

This review has revealed that a range of pressures is prompting a mix of approaches to change management to be adopted in universities. External

demands for increased accountability and the need to respond swiftly to external opportunities are resulting in the justification of a management-driven technical rational approach while the devolved internal organisational structures and allegiance to the traditional collegiate culture are ensuring that a collaborative, organisational development approach is still the preferred choice of many senior managers. Each approach on its own has been shown to have its limitations so a contingent approach using an appropriate mix of incremental and transformative strategies would appear to be the most appropriate approach to adopt in implementing change in this type of organisation, but other factors such as the complexity of the change suggest that it is far from straightforward

The introduction of e-learning is an example of one of many changes affecting higher education that highlights the tensions that can arise when directive change strategies are needed but they have to be coupled with collaborative efforts in order to successfully further a strategic initiative in a devolved organisation. The contingent approach may appear to lead to successful implementation of change in this situation, but the studies supporting this approach are mostly reported at the level of the organisation and fail to explain the realities of the change process and its messy nature, and how it is being received or acted upon, either by the academics who are most affected by it or by the change agents who are leading the implementation. The impact of the change strategy at the individual level is not well researched in universities because change is hidden in loosely coupled systems (Kezar 2001b).

Innovation diffusion theory (Rogers 2003) has been identified as potentially having greater power than these other change models to afford a more close-up view of change processes associated with the adoption and diffusion of e-learning. It is common to find the variables relating to the individual characteristics of either the technology or the potential adopters used to explain the adoption of e-learning at the level of the individual academic or student, but the diffusion model as applied to innovation in organisations has been neglected in the literature relating to change management in universities.

Therefore the focus of this research is to explore the extent to which Rogers' (2003) innovation diffusion model can be used to explain the processes of implementing change relating to e-learning in a devolved, loosely-coupled organisation. It will explore the perceptions and experiences of the different actors, including university managers, academics and change agents, involved in the process of moving towards e-learning.

The research study has been designed to explore a number of issues associated with this topic. Given the importance of the innovation champion in diffusion, initially it aims to understand how university managers, in both senior and middle manager positions, balance the tensions identified between the need to adopt a TR approach to accommodate external drivers and their desire to manage collegially, and to illustrate how this experience might influence their perceptions to approaches to the implementation of e-learning, including their willingness or ability to act as champions of the innovation to encourage diffusion.

The impact of their chosen approach to change management and its consequences is then explored from the perspective of the individual academics who are encouraged to adopt e-learning and the contribution that this can make in explaining the innovation diffusion process in a devolved organisation. The focus here is not so much on the characteristics of the individual adopters, as often studied elsewhere, but on the factors affecting their secondary adoption of an innovation once it has been adopted by the organisation in which they work. It therefore seeks to understand academics' perceptions about the drivers for the implementation of e-learning, the impact e-learning is having on their work, their perception of its complexity, its impact on their sense of academic identity and the contribution of these factors to their innovation adoption decision.

Diffusion occurs through social networking but the nature of academic work appears to be resulting in academics feeling increasingly isolated from their colleagues, so the third area explored is the role of social networks and peer contact in the diffusion of e-learning. This area of the study seeks to identify the contribution that social contacts among academic peers make to the diffusion of e-learning by influencing individuals either to adopt new approaches to teaching

and learning or to remain with traditional approaches, and whether these influential individuals belong to heterophilous or homophilous groups.

Finally, the role of the change agent who has to manage the impact of managerial decisions on diffusion within the organisation is also the site of many tensions. The diffusion model identifies that the purpose of the role is to organise and undertake interventions on behalf of the agency promoting the innovation in order to influence innovation-decisions made by the potential adopters. This is a role that appears to raise a number of issues when the organisation is a devolved university and the change agent is located in a unit that is outside the academic departments. I will reflect on this as I consider my own role as insider researcher and the impact of this on the research process. The conceptual framework portrayed as a model of the links between the elements of innovation diffusion and the context of implementing e-learning in universities is visualised below (Figure 2).

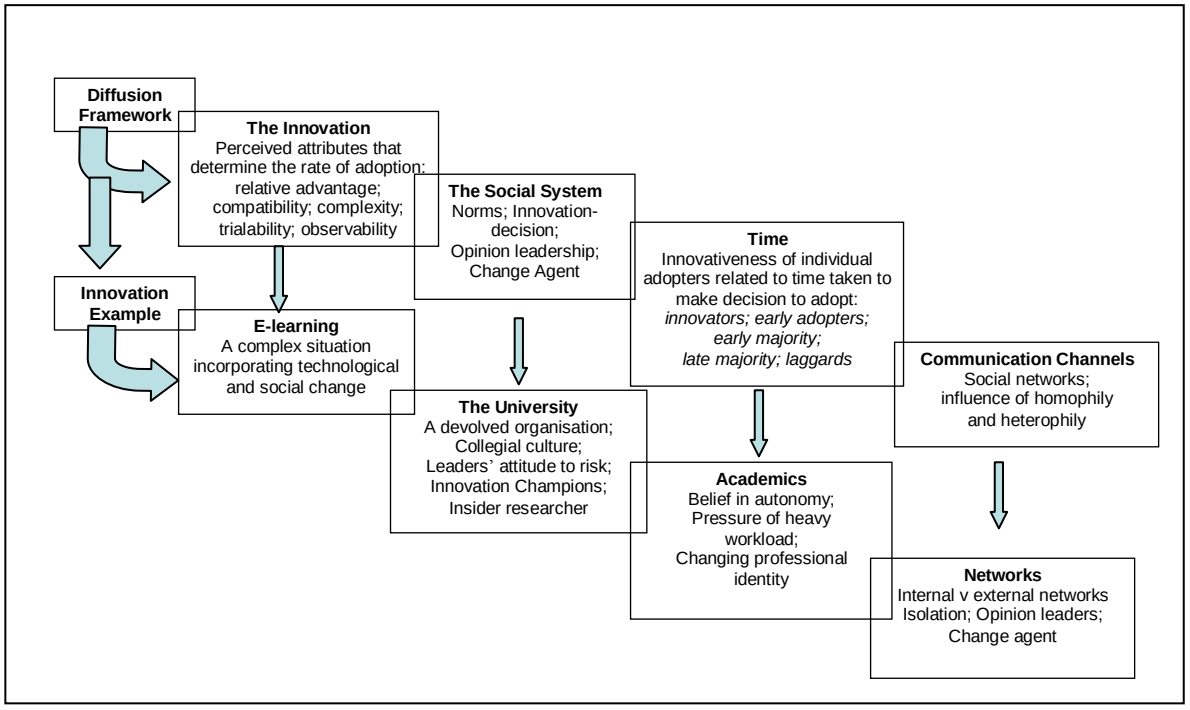

Figure 2 Model of the use of innovation diffusion theory to explore e-learning in universities

Conclusion

In this chapter I have identified that implementing an enterprise level e-learning system in universities is one of those challenges that brings change management strategies into sharp focus. A number of competing change management approaches were analysed and Rogers' (2003) diffusion of innovation theory was selected as the framework through which the study would be carried out. A particular feature noted in previous studies on e-learning was an emphasis on the managerial point of view that tended to exclude the voices of those directly affected by the implementation process. The use of Rogers' framework enables change to be explored from multiple viewpoints that should develop a richer perspective on the process of implementing change in a devolved organisation and contribute to a deeper understanding of the implementation of e-learning in universities. The next chapter explains my approach to collecting and interpreting data in support of this investigation.

Chapter 3: Research Methodology

Introduction

This chapter discusses the research methodology and the methods used to collect and analyse data. It explains why I adopted a qualitative methodology and a case study approach for the research design. I focus in detail on the influence that being an insider within the organisation in which the research was conducted has had on my actions and interpretations and I acknowledge the ways in which this status might have influenced my inquiry. The principal data collection methods included individual and group interviews, with a process of categorical aggregation used to analyse the data. I drew upon University documents to provide a sense of history of the research site to set the context and also made use of email communications, notes from my observations of meetings and reflections from my research journal in addition to the primary interview data to illuminate the unfolding processes that are presented through the case study.

Research design: the selection of a qualitative research paradigm

In the previous chapters I have introduced the reader to some of the contested views about the role of e-learning in higher education and the change management approaches associated with its introduction. I have shown that the complexity of the change process is often underplayed or ignored in reports and the voices of those directly involved, either those responsible for promoting the changes or those affected by them, are often distorted or go unheard. The purpose of my research, therefore, is to examine these change processes using the diffusion of innovation model as the conceptual framework through which to explore the issues surrounding the varied rates of adoption of e-learning that I observed in this case. I also chose to focus more on the organisational elements of the model rather than focus solely on the adopter characteristics, as with many previous research studies.

A number of these issues at the organisational level and at the level of the individual academic were explored through the literature. At the senior management level, the development of e-learning policy appears to be

established through a combination of responses to external drivers and leadership styles and choices. At the level of the individual academic, the picture is much messier. Individual academics are frequently portrayed in the management literature as having a negative attitude or lack of IT skills, which are often problematised as the reasons for delays in adoption. My research questions identified at the end of the previous chapter were designed to gain a greater understanding of the perceptions of university managers and academics about e-learning and its impact. By gaining insight into the ways these perceptions at different levels influenced the adoption and diffusion of e-learning implementation, I hoped to be better placed to make appropriate interventions through my professional practice role.

A particular feature of the research literature on change management in universities generally, and on e-learning specifically, was the very straightforward nature in which significant changes were often reported. As I began to reflect on my own experience in relation to these other examples, I realised that this bore little resemblance to my own reality of the complexity of introducing change in this environment. Even when these other reports were based on qualitative studies, it was as if the voices of those directly affected by the adoption of the innovation were hidden, or even distorted, more akin to a quantitative approach that was explained through "external researcher-derived logic which excludes, or at best distorts rather than captures, actors' subjectivity from the data collected" (Guba and Lincoln 1994 cited Johnson et al. online: 8).

The discourse of these other reports also presents a mainly managerial perspective, privileging managers' "persuasive claim to expertise grounded in objective knowledge" in a positivist way (Johnson et al. online: 59). The voice of the academic was rarely heard, or where it was reported it was at best a straightforward descriptive or literal interpretation (Mason 2002) of the data gathered. It was as if the data had been 'mined' by the researchers in the search for essential truths, or "nuggets of essential meaning" (Kvale 1996:3). In many cases, as I have already suggested, this approach positioned academics as negative and obstructive towards change. A research approach that might possibly lead to my defining and reporting my own work in a similar manner, as a 'social problem' (Silverman 2001:11), did not align with my relativist ontological

position, nor would it, in the longer term, be useful epistemologically in guiding my future professional practice in a devolved organisation. For these reasons I concluded that my research approach would need to help me gain an insight into the experiences of managers and academics as they grappled with their realities of developing and implementing university policy and practice associated with the use of e-learning. I felt it was important to understand the experiences of those affected by the innovation adoption and diffusion processes and explain some of those points of contradiction and distortion. I recognised that there could be multiple realities associated with this understanding, not just related to the different roles of the individuals I was interviewing, but also according to the different facets of their identity. With academics, this might depend on whether they drew their identity primarily from the external, cosmopolitan work of their discipline, or from membership of their devolved department in a collegial organisation. With university managers, it might depend on whether they drew their authority primarily from a technical rational position or from the academic leadership of peers.

These factors pointed to the adoption of a qualitative rather than a quantitative methodological approach, drawing in particular on the constructionist paradigm (Schwandt 2000) as I explain further on. This emphasis on a qualitative approach was further confirmed when I examined the research tradition of innovation diffusion research.

Paradigms for innovation diffusion research

The innovation diffusion framework identifies a number of variables that have an impact on innovation adoption and diffusion within an organisation and which are often studied independently of each other. Although the very term 'variable' in itself suggests that the innovation diffusion theory is located in a positivist tradition (Mason 2002), Rogers actually asserts that:

> The diffusion of innovation is essentially a social process in which subjectively perceived innovation about a new idea is communicated from person to person. The meaning of an innovation is thus gradually worked out through a process of social construction. (Rogers 2003: Preface xxi)

However, much of research in the diffusion tradition, on for example, social network analysis (Abrahamson and Rosenkopf 1997; Durrington et al. 2000), is the result of answers derived through the mathematical modelling of responses to questionnaire surveys to arrive at 'truths'. This seemed potentially to deny me the possibility of using this framework in my qualitative research, but I was encouraged to do so by Rogers' own position on this. He suggests that pro-innovation bias, the implication that the innovation is inherently beneficial, has the potential to distort diffusion research (Rogers 2003) so a research approach that offered an opportunity to gain a more multi-dimensional perspective would seem to be appropriate. I can also draw upon the earlier roots of diffusion research that were based in the disciplines of anthropology and sociology to argue the case for a qualitative approach which enables the researcher to tell the story from the respondents' viewpoint, to account for the cultural values of potential adopters and to speak directly to respondents to gather primary data.

In identifying my research approach, I also had to take account of the complexity of the university as an organisation, the many different actors involved in the move towards the adoption of e-learning and my own position as insider researcher, all of which indicated that in order to gain a more informed understanding of the diffusion process in this particular case, I needed a methodology that stressed:

> ..the socially constructed nature of reality, the intimate relationship between the researcher and what is studied and the situational constraints that shape the inquiry. (Denzin and Lincoln 2005:10)

The increased sensitivity to seeing the innovation through the eyes of the respondents, thus gaining a more holistic view of their world, would also lessen the likelihood of reporting the individual blame bias that occurs in diffusion research that positions non-adopters as irrational. These factors confirmed my decision to adopt a qualitative methodology, but I also had to recognise the influence of my own position in the research which introduced a further refinement to the strategy that I explore next.

Constructionist paradigm

There are dangers in assuming that even through a qualitative approach, the researcher might be able to arrive at some external, objective 'truth' that can exist independently of the knower, who remains "unaffected by and external to the interpretive process", as the phenomenologist in the interpretive tradition would propose (Schwandt 2000:194). Given my insider position in the organisation I recognised that I was more likely to be constructing reality with my respondents which drew me to the social constructionist view of the creation of knowledge (Denzin and Lincoln 2005). This was not the understanding created through the hermeneutic tradition, in which understanding is arrived at through a process that includes recognition of the researcher's biases and negotiation of meaning but a more radical acceptance of the contextual position of myself as researcher and that of my respondents that suggests that "we do not construct our interpretations in isolation but against the backdrop of shared understandings, practices, language and so forth" (Schwandt 2000: 197). Constructionists are "interested in documenting the way in which the accounts 'are part of the world they describe'" (Silverman 2001:95). My position is therefore contextualised but not nihilistic, I do not go so far as to suggest that there can be no definitive understanding, or no fixed reality in the post-modern sense in this inquiry, I do attempt to justify my own interpretations that are explored in later chapters of this inquiry. I draw upon the position of Gadamar (1975 cited Schwandt 2000), to suggest that my interpretation can be seen as a basis for developing 'practical-moral knowledge', or an understanding that arises from the practical involvement of the researcher, and I invite my readers to recognise my interpretation of the issues around moving to e-learning as a valid contribution to this domain of knowledge.

Summary of the qualitative argument

This section has presented my rationale for adopting a social constructionist position within a qualitative paradigm. The topic of the inquiry, its context and the position of researcher and researched all led me to this position. I now move on to consider the strategy for the inquiry in greater detail, focusing in the next section on the use of case study.

Case study as strategy of inquiry

I chose to undertake this qualitative inquiry through a case study. Case study has been described as both a method for the research and a product of the research. It is suggested that it is an appropriate method when the aim of the research is to develop detailed knowledge about a single case (Robson 1993) and when the research concentrates on:

> ... experiential knowledge of the case and close attention to the influence of its social, political and other contexts. (Stake 2005:444)

Case method is also appropriate when the research aims to investigate the complex interrelationships between the elements of the case and the multidimensional aspect of the innovation (Patton and Appelbaum 2003), as with e-learning.

Yin confirms that a case study strategy has the following defining features; it is an investigation of a contemporary phenomenon within its real-life context where the boundaries between the phenomenon and its context are unclear and in which multiple sources of evidence are used (Yin 1989). Although useful as a brief description, I preferred Stake as a source of authority as Yin's primary purpose is "to place case study research within the framework of the scientific method" (Yin 2003: 163) which did not appear consistent with the aims of my research.

Case study offers a method for the researcher to "preserve the multiple realities, the different and even contradictory views of what is happening" (Stake 1995:12). This would allow me to extend understanding of the impact of the variables in the innovation diffusion model and the complex interrelationships between the actors constituting those variables. Case study is also a flexible approach where the problem areas may become progressively re-focused and redefined as the research progresses, so it is possible to end up some distance from the original question, as I found. This inquiry began by seeking an explanation of strategy implementation and change management in a devolved organisation and led into an exploration of identity as a feature of the actors caught up in the change processes.

Defining the case

A case is a 'bounded system', an object of study that has a boundary and is constituted of working parts (Stake 1995). Since I had a specific interest in understanding more about the processes of innovation adoption and diffusion in the university in which I worked, the site for the case was already pre-selected for me. The theoretical issues I was investigating in this context, change management and the diffusion of e-learning, had been derived from an examination of the literature and of other cases, so my methodological orientation to the case was to undertake an instrumental case study, thus using the case to learn more about the issue, rather than undertaking an intrinsic or collective case study (Stake 1995). Within the single site case, there are also likely to be different individuals, groups, places or events to study, so even though the choice of site maybe predetermined, there are subsequent choices to be made about which sub-units to select to study (Stake 2005). Using the innovation diffusion model as a guide I included the following as my sub-units: members of the University's executive who were promoting change, members of the group of academic managers who, as line managers, were expected to secure the desired change in the individual academics they managed through processes such as appraisal and staff development, and academics themselves who were expected to make changes to their teaching approaches by adopting e-learning. The latter were drawn from Rogers' (2003) innovation adopter categories.

Addressing the criticisms of case study research

The single unit of analysis case study approach is sometimes criticised for its lack of generalisability but by providing a sufficiently rich description, readers should be able to understand the dynamics present within the setting (Eisenhardt 1989) and to add this to their experience of other cases on this subject, thus affording 'naturalistic generalization' (Stake 2005:454). It also allows the researcher to use a wide variety of evidence, interviews, documents, observations and artefacts (Yin 1984 cited Patton and Appelbaum 2003). The combination of a constructionist approach with case study research provides readers with "good raw material for their own generalizing" (Stake 1995:102) and also provides further opportunities for avoiding pro-innovation bias and individual-blame bias sometimes found in diffusion research.

Case study method is also charged with being unreliably subjective because the researcher can exercise too much influence over the study through their pre-understanding and familiarity with the research setting. However, this very closeness to the object of study can enhance the naturalistic generalisation since the researcher's personal interpretation and assertions enable the reader to learn through the stimulation of reflection on other cases with which they are familiar (Stake 1995). In effect, the reader, or the receiver of the information, is presumed to be in the best position to judge the applicability of the research to other situations (Kvale 1996). In this context I felt it was important to fully understand the potential impact of my insider status on the research so I investigated the issue in depth, as I discuss in the next section.

Insider research and the role of change agent in the diffusion model

The research process was made more complex by my own position as both researcher and practitioner within the research setting. As the manager of a central service that aims to support academics in their development and implementation of e-learning I am positioned by the innovation diffusion model as a change agent. My role in this position is to "influence clients' innovation-decisions in a direction deemed desirable by a change agency" (Rogers 2003: 366). In this case, this required me to increase the adoption of e-learning in support of senior managers' aspirations to make the University's teaching and learning approaches more efficient and flexible, thereby enhancing the capacity of academics to increase their research outputs and maximising the University's potential for attracting an increased market share of students. This position would appear to leave me with no option other than to support the technical-rational approach to change management myself, but given that the success of the change agent relies on identifying the compatibility of the innovation with the clients' needs and developing empathy with clients, (Rogers 2003), adopting this approach which appeared to be questionable in other examples of e-learning diffusion initiatives, seemed inappropriate in this case. My position offered an opportunity of exploring the tensions in the change agent role that appeared in this diffusion context, providing I recognised the issues associated with insider research, and as, Humphrey suggests, 'located' myself within the organisation in terms of my beliefs, values and knowledge (Humphrey 1995:19).

Insider research has been most closely associated with ethnographic approaches as used, for example, in the fields of anthropology and sociology, where 'going native' has enabled a close-up approach to observation to be adopted. It was less commonly found in management research until recently (Perriton 2000). It has been defined simply as "conducting research with communities or identity groups of which one is a member" (Kanuha 2000:2/10). However, a more complex analysis is offered by Humphrey who identifies five different categories of individuals undertaking research within their own work organisations. These include individuals who have formal roles as researchers, who may also be policy advisers to the organisation, those who temporarily join the organisation for the purpose of undertaking the research, either overt or covert, those undertaking action research projects, or those, like myself, insiders who become part-time researchers in addition to their everyday duties (Humphrey 1995). Each insider position brings its own challenges and all of them have the potential to influence the whole research process, including the selection of the research site, the sampling method, data collection, documentary analysis, observational techniques, and construction of meaning from the data during analysis (Hockey 1993).

I continue by outlining some the challenges of insider research from the perspective of an insider who is at the same time a professional practitioner and part-time researcher and identify the ways in which I have approached them.

Taken-for-granted assumptions and pre-understanding

Undertaking research in a setting familiar to the researcher brings with it advantages and disadvantages. This pre-understanding of the University that I bring to the research should enable me to obtain richer data because I can draw on my own knowledge of its pre-occupations, the informal ways in which it works, the gossip, the office jargon and the meaning of critical events in its history; I am able to see beyond the "window dressing" (Coghlan 2003:456). Having worked in the University for over fifteen years I could even consider myself a "deep insider", with a substantial background of long term observation and participation to draw on. I had been involved in the daily life of members of this community,

sat on the same committees, shared teaching and student support activities, collaborated on writing funding bids and participated in social events outside work. I have observed its successes and its troubled times, I have a legitimate view of its history, including "the corpses, the heroes, the skeletons" (Edwards 1999:4/14).

Initially, this familiarity with the setting should help me to gain easy access to respondents for data collection, and it may make it more likely that I will be able to win their trust because they see me as a member of the same organisation rather than being a researcher or consultant from outside the University. I may also be "charade proof"; able to see when posturing is taking place. However, this familiarity may also result in my inability to question taken-for-granted assumptions, for example in data collection through interviews by not probing responses sufficiently, or in data analysis by not rising above superficial descriptions and concluding that 'nothing happened' (Hockey 1993). Although I considered myself to be a member of the University community, in fact many different communities existed, as the discussion on universities as devolved organisations in the previous chapter revealed. As a member of a central service rather than an academic School, I could immediately be positioned outside the academic context, which has been reported problematic for practitioner researchers (Holt and Challis 2007; Webb 1996). It is also a problem as far as the success of the change agent role is concerned, since one of the main roles of the change agent is to facilitate the flow of communication between the change agency and clients; being positioned as a heterophilous change agent is less conducive to facilitating effective communication about the innovation (Rogers 2003). I return to this theme in the penultimate chapter.

Having considered the potential impact of my insider researcher position on the overall research design, I also had to consider its impact more specifically on the processes of data collection and analysis, as I outline in the next sections.

Data gathering

Although Stake suggests that there is no particular moment when data gathering begins in case study research (Stake 1995), I can pinpoint the beginning for me when I sat in my office considered the report I had just produced for the Vice Chancellor about the use of e-learning in the University. In response to an invitation from the DfES to submit a case study on the use of e-learning at the University, I had collected together information about its use from each of the academic Schools. This was a single, corporate response that aimed to reveal the innovativeness of "the University" to the world, yet the act of collecting the data had actually revealed that each School was at a very different stage of adoption. These multiple internal variations were hidden from view in the public document, as they are in so many other documents that attempt to explain organisational innovation adoption and diffusion. My document and others like it presumed an underlying uniformity and simplicity to managing the change associated with the innovation. Although I would find such documents useful for identifying the underlying corporate vision, they could not explain how this state of affairs had arisen. That was more appropriately explored through interviews.

Interviews

I have explained in the preceding paragraphs that I was seeking to gain an understanding of the experiences of different stakeholders involved in the processes of innovation adoption and diffusion through a qualitative methodology that would reveal more about the issues identified by my research questions. I concluded that knowledge of these multiple realities would best be gained through interviews, so this became the primary method of data collection with each of the sub-units of the case identified below. I conducted twelve semi-structured interviews with individuals and one focus group interview comprised of nine individuals.

In developing the interview schedules I was aware that Rogers suggests that deeper questioning than that normally achieved through asking simple direct questions in survey style is necessary to increase understanding of motivations for innovation adoption (Rogers 2003:115). I also recognised the potential for respondents to give me socially acceptable responses if I asked direct questions

(Platt 1981). Furthermore, Stake suggests that case study research seldom proceeds with the same questions asked of each respondent (Stake 1995:65). With these issues in mind, I decided to develop a loose interview structure for each group of respondents with questions related to the research questions worked out in advance that would act as prompts about the key issues but would allow me sufficient flexibility to follow lines of inquiry specific to the individual respondent (Mason 2002:70). Each interview schedule (Appendices 1A-D) was therefore developed initially from etic issues, which had been identified from the literature relating to the research questions that I wanted to explore, and was then informed by emic issues, which were issues brought up in the discussions with each group of respondents (Stake 1995). I explain the variations in greater detail in the following sections that discuss each sub-unit.

I recorded the interviews onto audio tape in most cases, apart from five interviews with the academic managers, which I did not consider it appropriate to tape for reasons I outline further on. In these instances, I took full notes which I wrote up immediately after each interview.

Sampling within sub-units

As I reported earlier, I had identified three sub-units of study: members of the University's senior executive; members of the group of academic managers and academics drawn from Rogers' innovation adopter categories. All of whom, through their multiple viewpoints, would have most to contribute to my construction of the case. In selecting the respondents from these groups I identified those individuals who could best help me understand the case and who would provide a variety of viewpoints. I did not seek a representative sample from each group, the main consideration was, as Stake suggests, "opportunity to learn" (Stake 1995:56). The following paragraphs identify how the selection was made.

Two senior executives were invited to take part in the research, the Vice Chancellor who was responsible for the overall strategic direction of the University, including the drive for greater flexibility of education provision and the

Pro-Vice Chancellor (Academic). This individual was responsible for the University's learning and teaching strategy that was expected to deliver that flexibility and to whom I reported on learning and teaching matters.

My original intention was to interview the senior academics responsible for the promotion of teaching and learning in each School, who might be considered to be in the position of opinion leaders for the diffusion of e-learning. However, following my early analysis of the transcripts of the senior executive interviews, and a particular event early in the research that I discuss later, I reconsidered the focus and selected a purposive sample of five individuals who each led an academic group and had line management responsibility for the academics within the group. This purposive sample included five academic managers from four different Schools, three males and two females.

Academics formed the third group of respondents and they were selected on the basis of their degree of involvement with or enthusiasm for e-learning according to Rogers' adopter categories. Issues were explored with this group initially through a focus group interview and subsequently through individual interviews. In selecting the individuals to invite to participate through the processes outlined below, I approached those with whom I had had little or no contact in relation to e-learning, in an attempt to make the familiar unfamiliar. I also avoided innovators who were well known across the University, in particular those whom I knew well, as I had often asked them to facilitate staff development workshops. I considered that it would be even more difficult to interpret their accounts without bias and also I doubted that they would actually provide information useful to the research inquiry because of their likely positions as 'lone rangers'.

The focus group comprising nine individuals, four females and five males, was employed to gain initial insight into academics' perceptions about e-learning. Those invited to participate represented a range from Rogers' adopter categories and included innovators and early adopters through to late adopters and laggards. I identified the individuals to approach by examining records of attendance at staff development workshops about e-learning and also records of usage of the VLE in use at that time. I used attendance at key workshops and

active usage of the VLE as indicators of innovativeness and early adoption and conversely, limited or no activity as an indicator of late majority or laggard status.

This was followed by individual interviews with five academics, three females and two males, who were selected because they appeared, from records referred to above, to be members of the early and late majority categories of adopters. These interviews were undertaken after I had begun the analysis of the data collected through the previous methods and were designed to explore some of the themes emerging from that analysis.

Impact on the interview process of being an insider

I recognised that insider researchers face a number of challenges when interviewing colleagues and senior managers, but I was unprepared for the extent to which it appeared to have an impact until I began to read through the transcripts in the process of analysis, despite the actions that I had taken to try to mitigate its influence. I refer to the initial issues that were raised in the following sections and develop them further in subsequent chapters.

Senior Executives

I adopted a semi-structured approach to the interviews with the two members of Southern University's Executive, the Vice Chancellor (VC) and the Pro-Vice Chancellor (PVC). It is suggested that organisational politics may inhibit deep access to data collection opportunities for insider researchers or that the research may be regarded by others in the organisation as subversive (Coghlan 2003), which were factors to be considered when approaching these two individuals to seek their permission to interview. I was therefore pleased when both of them agreed to be interviewed for my research. However, they were both familiar with my substantive role in the University, so I wondered to what extent the status differences between them and myself, and their perceptions about the nature and purpose of my research, might lead them to create a particular frame of reference for the interview that would affect their responses to my questions. Would they filter their responses to give me an idealised version of what they

thought I wanted to hear or would they even withhold sensitive information? (Hockey 1993). The focus for the interview with each (Appendix 1A) was Southern's Learning and Teaching Strategy, which I felt would legitimise my request to them for the interviews, in recognition of my University role, and enable me to ask questions about their perceptions of the drivers affecting HE, the role of e-learning and their attitude to measures that might enhance adoption and diffusion.

I recorded both interviews on audio tape, having secured their permission to do this. I transcribed the tapes myself and invited them to check their transcript. The PVC did so and made some minor typographical changes, but the VC declined to check the transcript, even before the interview had taken place. I took this lack of interest initially as a slight on my research activity, that she was not sufficiently interested in it to 'play the game' and act in the way respondents were supposed to act, but I later realised that this same lack of interest in what I was doing actually made it more likely that I had gathered 'ordinary' data rather than a presentation for my benefit (Stake 1995), which would add to the truthfulness of the data. I develop the analysis of the impact of my insider status on these interviews more fully in the next chapter.

Academic Managers

I selected five individuals and sought their participation having first explained the purpose of the research and the reason for seeking the interview. The first aim of the interview was to explore their views on the place of e-learning within their academic department. The second aim was to explore with them some of the factors which might be responsible for encouraging staff to use e-learning more widely and those which might be inhibiting them from using it. I invited them to identify strategies or activities that might encourage further adoption. I hoped that they would perceive the interviews to be beneficial to themselves as well as providing data for my research, which would make them more likely to grant me access. The interview questions (Appendix 1B) were developed from themes similar to those for the Senior Executives since I was still seeking the location of potential innovation champions, but they were amended by the addition of specific questions about managerial influences on their academic leadership such as approaches to appraisal.

I decided not to tape record these interviews because I did not want to inhibit them from expressing their views. I anticipated that, given my position within the University, they might be more willing to express their opinions if they were not recorded, so my data rely on my memory and my notes taken during the meetings, which were written up as soon as possible after each meeting.

Academics: Focus group with mixed adopter categories

I chose to use a focus group interview to gather data from academics who were facing choices about adopting e-learning. There is some debate about the value of focus groups as a serious research method if used as the sole instrument in an interpretative inquiry but they can be a useful tool in conjunction with other methods, as Bloor et al suggest:

> As an ancillary method, therefore, focus groups may operate at the beginning, middle and end of projects. (Bloor et al., 2001:9)

It therefore seemed legitimate to use a focus group early in my research process as an exploratory tool to undertake a preliminary investigation to generate data on meanings and perceptions of academics about e-learning, its potential for changing their teaching approaches, and its impact on their working lives within their particular contexts (see Appendix 1C for interview schedule). There was a utility value in bringing a group together to conduct a discussion to:

> …elicit a greater, more in depth understanding of perceptions, beliefs, attitudes and experiences from multiple points of view and to document the context from which those understandings were derived. (Vaughan et al. 1996:16)

By bringing academics together from different Schools, the occasion offered not only "the potential for accessing group meanings, processes and norms" (Bloor et al. 2001:4) but also there was potential for identifying any similarities or differences in perception that might be attributed to disciplinary or School context differences. I hoped that the group format would encourage the participants to speak with candour and that the potential for a snowballing effect would be realised as the provision of experiences within one School would prompt further disclosure about others. With this group, I was aware of the potential for the participants to feel that they had to impress me, the interviewer, with their responses, or that they might be deferential or concealing, but I

hoped that the group setting would enable them to disclose freely (Vaughan et al. 1996). I develop this theme further in the next section as I discuss the individual interviews with academics.

Academics: individual interviews with early/late majority adopters

The insider researcher status may lead the researcher to structure interview questions and responses differently, starting with the decision on how much information to give respondents in advance of the interviews. If the researcher gives too much away about the context of the research, there is a risk of biasing responses if respondents decide to provide socially acceptable responses. If the researcher withholds information, there is a risk that respondents may form the impression that the researcher is unacceptably controlling the interview (Platt 1981). When planning the individual interviews, I anticipated that my position as change agent encouraging the adoption of e-learning might lead the respondents to give me what they considered to be socially acceptable responses if I asked direct questions about their attitudes towards adopting e-learning. I was also aware that I had the potential to demonstrate pro-innovation bias that might influence their responses, so the interview questions were designed to inquire more broadly about factors influencing their adoption of teaching and learning methods before asking about their use of e-learning and the challenges they perceived in the current context of higher education (see Appendix 1D for interview schedule). I also sought ideas from them on how they might be better supported in introducing innovation into their teaching and from whom they gained information about e-learning to establish the influence of their social networks on their adoption of this innovation. These questions were derived initially from the overarching research questions, but then influenced by more specific issues that reflect the emic issues emerging from the focus group.

Recognising that the day-to-day familiarity of the meeting situation and our shared background knowledge and cultural understandings might result in the interview becoming more like an everyday conversation, I began by using a formulaic interview approach to establish difference and distance, consciously entering a role-play as I adopted the role of interviewer (Platt 1981; Hockey 1993). This approach is intended to lead to greater rigour in encouraging the interviewer to pursue vague answers, not allowing innuendos to go unchecked, and not allowing respondents to complete sentences by using phrases such as ‘but I don’t need to tell you that’ (Kanuha 2000).

However, on listening to the tapes while transcribing I was disappointed to hear how frequently I fell into the trap of familiarity. With hindsight I realised that the more I tried to distance myself from the researched in the search for greater objectivity, the more I may have distanced myself from the research process and the ability to gain thick descriptions (Kanuha 2000).

Other sources of data: documents, email communication and meetings

Documents

As I have already reported, contextual data on the case site were collected from key documents such as strategic plans and reports produced for specific events such as quality audits. All these already existed in the public domain. It is very easy to over-collect this type of data source so it is important to identify boundaries set for the case, which is this case was documentation relating to the use of technology and e-learning.

Electronic communication

Email is a commonly used communication tool across the University and is used to consult with groups on issues as well as for one-to-one communication. I have incorporated extracts from emails relating to the events I discuss in the penultimate chapter. I justify their inclusion where they illuminate specific points I am making and have been communications to a group of individuals in the course of an open discussion. I decided not to use any extracts from personal emails from any one individual to myself. I have anonymised the senders' names in the extracts I have used.

Meeting with senior academics with responsibility for promoting learning and teaching

In each academic School there was one senior member of the academic staff who had a responsibility to promote and support innovation in learning and teaching. They would be positioned as opinion leaders in the diffusion model. While I was beginning to map out the research design I organised a meeting with them to gather their views about e-learning and more generally about strategies

for promoting innovation in learning and teaching. After a brief introduction I no longer had to ask questions or make comments to keep the discussion going, and as I listened to them talking, I noticed one theme in particular emerging. This appeared to be the first time they had come together informally since their role had been created and one aspect of the role which they all agreed was problematic was the lack of power to influence their academic colleagues in their adoption of new teaching methods. They attributed this to the fact that they did not have line management responsibility for academic staff and could therefore have limited impact. My original intention had been to explore the possibility of a participant action research design using this group as a reference group, but after this meeting I realised that the key respondents to interview would be those academic managers responsible for line management of academics, who were potentially more likely to be a position to influence adoption of e-learning more directly.

I also kept a personal journal throughout this period in which I noted my observations of meetings, both formal and informal, notes of conversations and reflections on events and interactions.

Data analysis

My approach to analysing the data, influenced by a constructionist approach, was to treat the interviews both as sites for developing meaning but also as topics for analysis in their own right. I was approaching them from the position, in Kvale's (1996) terms, of traveller rather than miner, attempting to understand how the interaction between researcher and respondent during the interview led to the construction of knowledge (Kvale 1996:11) rather than trying to discover some objective reality where "the focus is as much on the assembly process as on what is assembled" (Holstein and Gubrium 1997:127 cited Silverman 2001:97). Furthermore, given my position as insider and the likelihood that my respondents would each have a pre-determined view of how to approach the interview, perhaps, for example, in the role of 'respondent' in a research study, as a 'line manager' supporting a subordinate, or as one 'colleague' supporting another, it seemed inevitable that the interviews would be totally context-dependent (Alvesson 2003).

Since I was drawing data from three sub-units within the single case, I used cross-sectional indexing within each sub-unit to draw out the distinctiveness of the different parts in order to build up an explanation of the whole. I was aiming to explore how the innovation diffusion model could be used to explain the processes of implementing change in e-learning by examining the experiences of actors in each of these sub-units, who as actors were at different levels of the organisation but whose experiences of the innovation were linked. By examining one sub-unit and developing an explanation of the respondents' position and then moving on to do the same with the next, I would be able to build up a picture of the complexities of their interaction and the impact of each on the other. Had I been examining, for example, the experiences of academics on the same level but in different Schools, it might have been more applicable to identify cross-sectional themes that could be applied to the whole data set (Mason 2002).

The interpretation of the data and the development of meaning in an instrumental case study are aided by the process that Stake (1995) refers to as categorical aggregation. This involves seeking patterns among the data which are coded according to pre-established codes suggested by the research questions and also by new codes which emerge during the analysis. The former process is likely to explain etic issues, or the ones that the researcher was originally interested in exploring, while the latter is more likely to surface the emic issues that are "important to the actors themselves" (Stake 1995:78). The acceptability of pre-conceived coding schemes in the analysis of instrumental case studies is evident because the researcher is drawn "toward illustrating how the concerns of researchers and theorists are manifest in the case" (Stake 2005:450).

I was influenced in developing the codes used to organise and aggregate the data by the framework offered by Miles and Huberman (1994) who suggest that three types of code: descriptive, interpretive and pattern, can progressively aid analysis and interpretation of the data. Mason (2002) also offers three levels at which the research data may be sorted and organised to

facilitate its 'reading', which she describes as literal, interpretive and reflexive. In both cases, the terms descriptive and literal are used for entry level types of analysis, using codes that describe the content of the transcript or the words used. When I considered previous research into e-learning and barriers to adoption, I referred to these as 'first order' factors, literally the words often used by respondents to describe their reasons for non-adoption, such as lack of time or lack of knowledge. So for example, with the early/late majority adopters, I built up the coding list using terms derive from etic issues, such as resources, workload, pressures, preferred teaching method, students, and positions of influential colleagues. Having 'sliced' the data according to these themes, I then examined these segments in greater depth to identify any common themes that might be perceived, for example, expressions of control or of teacher presence. From these interpretations I built up a more detailed picture of emic issues such as academic autonomy and identity. Pattern codes began to emerge as I compared the analysis of one sub-unit with another and linked each back to the elements of the innovation diffusion model being explored through the case study as a whole, for example as I made connections between the senior executives' and academic managers' comments that reflected the forces influencing academic identity and autonomy and related these to their impact on innovation adoption within a decentralised organisation.

On the reflexive level, the coding for this reading served to reveal the extent to which I was inextricably linked with the whole process of data generation and interpretation and was only developed after lengthy immersion in the data and followed on from the coding of the other three categories. Initially I coded the etic issues associated with the position of the insider researcher and looked for examples of either my talk or my omissions in the interviews that illustrated my pre-understanding. For example, I noted examples of my formality, of not following up respondents' statements, and of giving too much information. As I became more attuned to the nuances of the insider role and developed a constructionist interpretation of the data, I coded examples of respondents' talk that indicated deference to my position as a university manager responsible for e-learning and staff development, their wanting to please me by giving me the "right answers" to my questions, and their assumptions that I knew everyone they talked about. I then developed codes

that surfaced emic issues such as respondents' self-deprecation, their shame at not engaging successfully with e-learning and my passive silencing. These coded segments then contributed to building up the patterns associated with the tension of being both change agent and insider and the implications of this for the innovation diffusion model.

This coding and re-coding was facilitated by using the computer aided qualitative data analysis tool MaxQDA, which I used principally to organise the transcripts, to code segments of text under the codes and to make memos to remind myself of the meanings I attributed to the codes. The package allowed me to find and display all instances of coded segments across all the transcripts within each data set. This facilitated further reflection on the meaning and the aggregation of data into patterns of consistency that supported explanations across the data sets. In addition to identifying similarities, I also looked for negative instances and contrasting paradoxes (Coffey and Atkinson 1996).

Judging the credibility of my research

The credibility of research has been judged traditionally by the standards of validity, reliability and generalisability expected of positivist research. However, qualitative researchers are now questioning the appropriateness of these standards for their research (Lincoln and Guba 2000; Mason 2002; Silverman 2001). I have addressed generalisability earlier in this chapter and noted the affordance for naturalistic generalisation offered by the case study but also noted the need to recognise the likely impact of being an insider researcher. The issues of reliability and validity remain to be addressed below.

Reliability

The reliability of my analysis, understood as consistency, was aided by seeking to develop 'low-inference descriptors' (Seale 1999 cited Silverman 2001) of my meetings with respondents that were as concrete as possible in the following ways. I made recordings of all the interviews at the time they occurred. I made

audio recordings of interviews with the senior executives, the focus group and individual academics. These were fully transcribed and the transcripts of individual interviews were returned to respondents for checking. For reasons outlined earlier, I chose not to audio record the interviews with academic managers, but I took full notes at the time, often verbatim in places, and wrote these up as soon as possible after the interview. I took a semi structured interview schedule with me to each interview that ensured I covered the same questions with each respondent in each category. I kept field notes in a research diary to record my feelings about the events and ideas as they arose.

Validity

Judging the validity, or truthfulness, of qualitative research is recognised as a contested area (Mason 2002; Silverman 2001). Traditional approaches to validity derived from a positivist paradigm have been questioned and an array of alternatives has been proposed. Sometimes, in the "relativism of rampant antipositivism" the three core concepts supporting the truthfulness of research, the "holy trinity" of generalisability, validity and reliability, are just dismissed as irrelevant (Kvale 1996:229). Validity is perceived to be seeking too concrete a boundary between truth and non-truth. However, this outright dismissal of traditional standards for judging the credibility of qualitative research is perceived to be unwise, since it might cause the standing of qualitative research to be questioned by the research community (Silverman 2001). A more reasoned alternative is to suggest that the search for validity may be replaced with the search for authenticity and a consideration of trustworthiness and credibility (Lincoln and Guba 2000).

In case study research, where the purpose is to interpret locally constructed meanings from an emic, or insider, viewpoint, credibility and trustworthiness should arise from the quality of the description that enables the readers 'to see for themselves' and this is facilitated by the researcher's prolonged engagement in the field. As I have discussed earlier, this familiarity with the research site brings problems as well as advantages, but throughout this study I have aimed to provide sufficient information about the research site and the context, as well as foregrounding my own position, to enable the reader to readily recognise the situation in support of my interpretations. The validity of my interpretations is further aided by adopting a "strong reflexivity" (Spencer 2001:450

cited Mason 2002:194) through which I acknowledge not only my presence but my responsibility for the way in which I have represented the words of my respondents. I discuss this and my 'voice' more fully further on.

The concept of triangulation is another cornerstone for establishing validity in case study research where a range of methods is used to collect data from different sources to check the validity of specific facts across data sets (Stake 1995) but even this has its critics who regards it as supporting a positivistic orientation that does not logically fit with "a relativistic view of the social world that qualitative research is interested in" (Mason 2002:190). Nevertheless, I believe I have undertaken a form of triangulation by interviewing individuals at different levels in the organisation, in addition to drawing on documents to illustrate how the University sees itself in support of my description of the site. This approach was aimed at attempting to reveal more of the complexity of the situation rather than being a "vulgar triangulation" from a variety of data sources stuck together "like children's' building blocks" (Coffey and Atkinson 1996:14). I could have sought the views of members of other groups in the University, for example, administrators, learning technologists or librarians, but they would not have illuminated the core research questions in this case.

Reflexivity and voice

Accommodating the multiple dimensions of voice is noted by Hertz as constituting "a struggle to figure out how to represent the author's self while simultaneously writing the respondents' accounts and representing their selves" (Hertz 1997:xi). This was the greatest struggle I faced in this research, often finding myself in a relativist state of paralysis, unwilling to make what might appear to be inappropriate claims about the lived experiences of others and therefore unable to make judgements for myself as to the validity of my interpretations. Potts notes in his research that by being careful to avoid giving offence or harm to those he studied he found that a voice he was unaware of had slipped into his final report. He comments on this in relation to his shy and reserved personality, suggesting that maybe if the insider researcher is aiming to be the voice of those he is studying, he needs to be more aggressive. However he then recognises that such a stance might have denied him access to material for the study in the first place (Potts 1998).

In reporting my interpretations I was mindful of the power I possessed "to attribute meaning to the statements of others" (Kvale 1996:227) but I also recognised that the interviews I conducted were sites of co-construction that gave me a legitimacy to report them as my stories; I could be both researcher and respondent (Guba and Lincoln 2005). By using sensitive language to reduce the power I had over the portrayal of others' voice and by trying to avoid speaking from a "distant, privileged vantage point" (Foley 1998: 110, cited Holliday 2002:176) I hope I have presented an empathetic picture for the reader (Stake 1995).

Ethical considerations

The essential ethical question for the researcher adopting a social constructionist approach is "How shall I be towards these people I am studying?" (Schwandt cited Denzin and Lincoln 2000:159). I have explained above how I selected respondents and why they were invited to take part in the interviews. With the academics, to protect their anonymity I gave them pseudonyms and broadened their discipline names to reduce the possibility of recognition within the University. With the senior executives, it was likely that by virtue of the gender of the Vice Chancellor, when coupled with the locality of the University, anonymity would be difficult to secure, which led me to request that the whole thesis be subject to confidentiality once examined.

In the day to day work environment, colleagues were aware that I was undertaking research but I did not discuss it unless asked, I was mindful of the possibility of my research being construed as betrayal or spying (Coghlan 2003). I noted in my research diary issues that arose from time to time that seemed to me to confirm some early thoughts but I did not use observation as a method which would have been a possibility. As I got further into the analysis it was uncomfortable each time the Pro Vice Chancellor asked me how it was going. I was experiencing the tensions felt by many insider researchers which some found so irresolvable that they felt bound to resign from their jobs or spend an extended time outside their institution while writing up (Edwards 1999; Herbert 2000; Holian 1999). I was fortunate that both senior executives retired and left the University before I finished writing up.

Conclusion

I have explained in this chapter why I have selected a qualitative methodology that uses a case study to explore the research questions. I have also identified the influence that being an insider researcher may potentially have on all aspects of the study. In Figure 3 below I present a visual overview of the research design, developed from the earlier (Figure 2) illustration in Chapter 2 to help the reader identify the path I have taken from identifying the potential explanatory power of the diffusion model, using the innovation that is e-learning, to illuminate the specific case of Southern University.

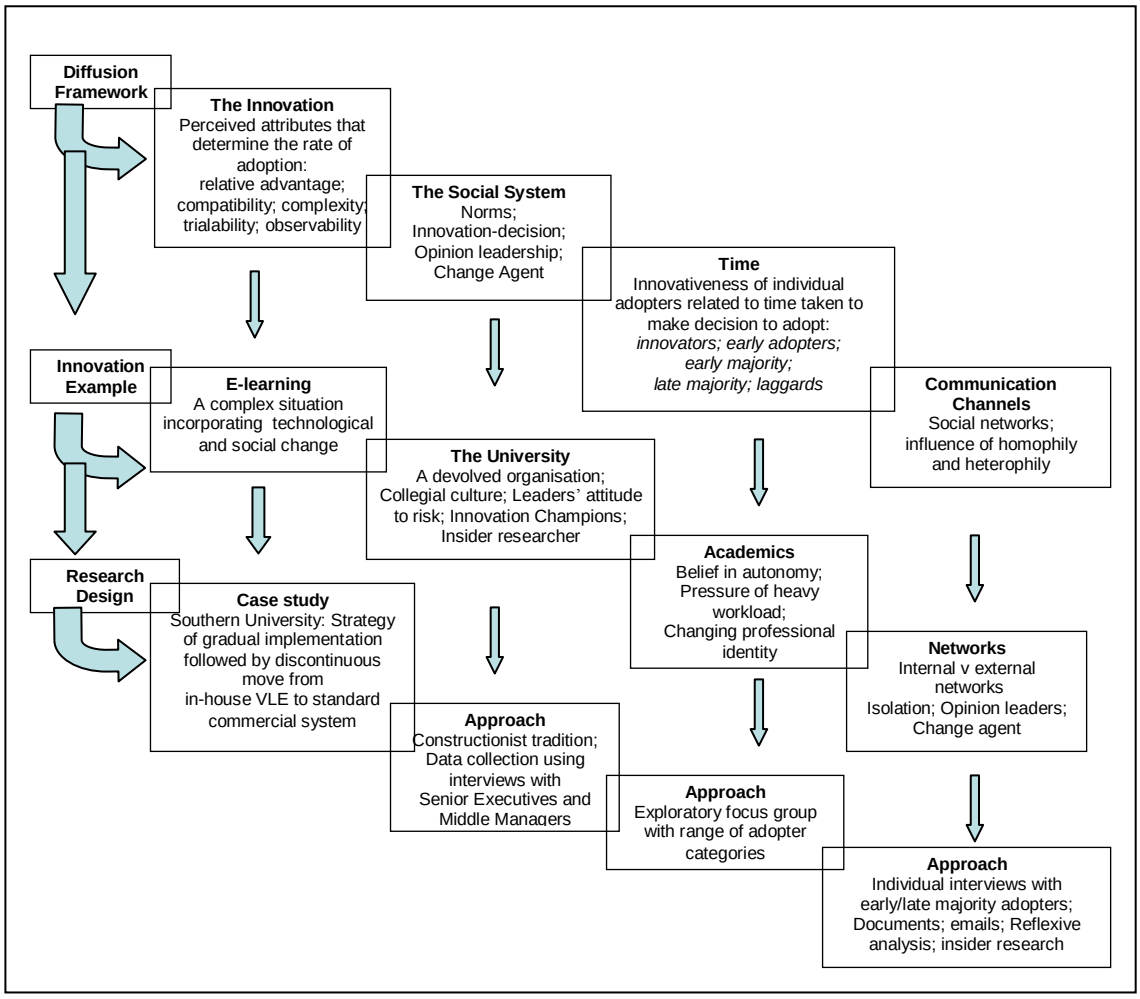

Figure 3 Visual summary of the research design

I now move on to introduce the site for the exploration of the research questions and begin the study by exploring approaches to change management within the site through

an interpretation of the data collected from university executives and academic managers.

Chapter 4: Introduction to the research site and approaches to implementing e-learning

Introduction

In the previous chapters I have explored approaches to managing change in universities associated with the implementation of e-learning. In these complex organisations the introduction of such a potentially de-stabilising innovation can have significant impact on all the actors involved, including the academics at whom the innovation is aimed, the change agents promoting the innovation, and the managers sponsoring it. The common approach to managing the introduction of this innovation, this angel/demon which has the power to both reconstruct and deconstruct the identities of individuals and organisations, is frequently an uneasy blend of a technical rational, management-driven strategy prompted by the need for external accountability, coupled with a collegial approach that draws on the principles of organisational development and takes account of the devolved and autonomous nature of the academic departments within the university. In many cases this appears to be similar to the contingent approach to change management, where both incremental and transformative strategies are used, but whichever approach has been used to explain the change management process, the accounts frequently fail to acknowledge the messy reality of the impact of change at all levels of the organisation and with the different actors. A framework that enables the researcher to get closer to this level of detail, particularly with research into e-learning, is the innovation diffusion model (Rogers 2003), which has been identified as the framework that will provide an appropriate sensitising device for drawing attention to the impact of change on a wide range of actors involved in the process of moving to e-learning.

Innovation diffusion theory has been used to explain patterns of adoption of e-learning by individual academics and students but the focus that it provides for examining adoption and diffusion at an organisational level has been explored less frequently. Within this organisational focus, four themes have been derived from the model that provide the rationale for the direction of my research. These are the roles played by managers, at both senior and middle levels, as champions of the innovation; the perceptions of academics who are faced with the decision to adopt an innovation that has already been adopted by the

organisation; the contribution of peers in social networks influencing these decisions; and the role of the change agent.

Following the identification of these four areas of inquiry and their associated research questions, I developed the rationale for undertaking case study research within a qualitative paradigm located with the social constructionist tradition. I now move on to introduce the case study site. The narrative begins with an overview of the development of e-learning derived from published reports and internal documentary sources. I then draw on the analysis of two interviews I undertook at the start of the research, one with the Vice Chancellor and one with the Pro-Vice Chancellor. This revealed the tensions inherent in any attempt to implement strategic change in the organisation and informs the subsequent analysis of the position of the academic managers that I present in the second half of the chapter.

The Institutional context

The case study site: A devolved organisation

The site itself, Southern University, is a medium sized, post-92 university in the south of England. E-learning developed in this institution incrementally over several years and built on earlier ICT developments but this process was punctuated during the course of my research by several events that influenced the subsequent direction of e-learning developments.

Just over ten years ago, when new appointments were made to senior executive positions, the University experienced a shift in leadership style from authoritarian to collegial and in organisational structure from centralised to devolved. External changes in the HE sector, including a reduction in public funding, together with the appointment of a new Vice Chancellor, led the University to “re-appraise its future direction and development” in 1993-4 (Southern University 1994a:11) and recognise the need for different strategic imperatives that included the need to:

> …modify the decision-making and planning process in order to ensure the integration and responsiveness of academic and resource plans. (Southern University 1994a:12)

This modification was to be achieved through devolving responsibility for the management of all a department's activities to the local level, allowing local managers to:

> …exercise an increased degree of decision making authority which matches managerial responsibility. (Southern University 1994b:2)

One operational feature of this was the transfer of budgetary control from the centre to the Schools, so each is credited with income arising from their student recruitment, research and other activities from which they pay their staffing and other direct costs. They also pay a contribution towards the University's overhead costs that include the central service costs. This has placed an increased responsibility on central services to provide a sound rationale for their activities and financial spend with reference to strategic institutional priorities and targets, particularly if a significant increase in funds is sought.

It is important to understand this context when seeking approval for funding in an area like e-learning where eventually the innovators start demanding more sophisticated tools. The purchase of these usually has an impact on all Schools, not just the one in which the innovation originated. By the time I took up the role in which I had responsibility for promoting the use of e-learning, the organisation was composed of seven academic Schools, each of which had been encouraged to develop objectives that, although congruent with those of the University, were designed to reflect the particular unique nature of each (Southern University 1994a:3). However, by 1999, it was admitted that this level of devolution:

> …presents challenges in regard to the overall coherence of the University's provision, its ability to fulfil its overall mission, assure quality and maintain standards…
>
> and
>
> …it is a balance that is subject to review on a continuing basis. (Southern University 1999b:5)

By 2003 there was real concern expressed in the planning meetings for the 2004 QAA Institutional Audit, of which I was a member, that the balance of devolution had swung too far towards the Schools. Much effort was put into rehearsing the responses to potential questions from Auditors probing this issue, with the result that the University was successfully commended for:

> …the effectiveness with which the University develops and facilitates networks to take forward developments in a collegial manner. (QAA 2004)

Nevertheless, even after this external scrutiny, it appeared to those internal to the University that it continued to operate as seven separate sovereign states.

The expansion of information and communication technologies (ICT)

Under the centralised management approach in the late 1980s, widespread access to personal computing for staff and students began with the introduction of the desktop computers into offices and the Library. This introduction of computers into the Library was an important statement about student access to ICT that was to become a major feature of the student experience at the University. The focus was initially on the development of IT skills as a core skill in undergraduate programmes and an open access learning centre for IT was created. However, as government funding to the HE sector decreased, efficiencies of delivery were sought and the rationale for increasing the availability of computers for students became associated with the expansion of opportunities for student centred learning, meaning, in effect, the use of learning packages in place of class contact. Under the heading “Developments in Learning and Teaching”, the Strategic Plan 1992/93-1995/96 included proposals to further develop student centred learning and to extend the open learning IT centre to provide access for students to computer workstations 24 hours a day 7 days per week (Southern Polytechnic 1992:5). This approach was expanded the following year through plans to:

> …extend student access to learning support materials via electronic networks gradually incorporating resource based learning. (Southern University1994a:14)

Academics began to use ICT in their teaching by creating lecture notes and presentations with word processing or presentation software. Some made their lectures available to students by saving them on floppy discs and placing them into the short loan collection in the library. A few experimented with early versions of computer conferencing software to encourage student centred learning to take place through 'virtual seminars' or used computer assisted learning (CAL) content authoring tools to create learning resources. Externally, the use of ICT was being promoted through government funded initiatives such as the Teaching and Learning Technology Programme (TLTP) between 1992-2000, building on the earlier Computers in Teaching Initiative (CTI). Both these initiatives focused largely on the development of subject-specific computer assisted learning (CAL) packages, encouraging the perception of e-learning as a packaged solution to managing student learning, thereby enabling managers to reduce the amount of face to face contact between academics and students.

A further trigger for innovation

In 1995 several central services at Southern were brought together to form a new educational development service and this was integrated with the Library and IT Services to create one large unit. According to the Vice Chancellor, one of the purposes of this new configuration was to encourage greater convergence of technological developments that were taking place within the Library and IT Services with the aim of harnessing technology in support of learning and teaching.

I was appointed to lead the educational development service and an incremental strategy for introducing e-learning to the University began to emerge. We began to promote e-learning through projects that built on the work of the innovators and early adopters among the academic staff. These focused on three aspects that mirrored familiar 'high touch' pedagogic activities but could also take advantage of the 'high tech' capabilities of the technologies to extend flexibility of students' access to learning. These were the use of computer conferencing software to facilitate communication between lecturers and students while the students were away from the University on placements, the use of CAL

resources created through the TLTP for content enrichment in areas such as law, accounting, business and archaeology, and the use of an automated assessment package to create tests to support formative assessment of students' self-managed learning. At this stage, there was no publicly stated institutional strategy to develop e-learning, so we referred to this as a 'building-blocks' approach to the use of learning technologies. Our approach was to suggest that the use of new technologies could be incorporated incrementally into teaching to enhance familiar pedagogic approaches rather than requiring the adoption of new techniques that could be perceived to challenge or undermine the traditional role of the academic. To promote interest and foster adoption the innovations were recognisable changes and congruent with existing approaches to teaching (Trowler et al. 2003). On one level the technology offered no change, the overall practices of curriculum design, monitoring students' progress and giving feedback remained the same, it was just the tools used to achieve these activities that changed. However, on another level, the technology had the potential to change everything (Oliver 2006), but this was not our message, partly because of in the devolved environment in which we worked and also because we ourselves were still learning about the potential of the technology.

Greater exposure of the innovation in the organisation

As the numbers of staff and students exposed to these e-learning packages and resources grew, the purchase of university-wide site-licences for them had to be considered. This was a significant point in the diffusion of e-learning, but even if the University formally adopted an e-learning platform at an institutional level, the subsequent diffusion of e-learning would still depend on individual academics making the decision to adopt.

In a parallel development, more classrooms and lecture theatres were equipped with networked PCs and data projectors, facilitating the use of technology-enhanced presentations and web-based resources through connections to the Internet in lectures. This encouraged the growing number of early adopters among the staff to experiment with e-learning, yet it was often they who expressed frustration at the perceived lack of technical support for what they were trying to do. Their demands for technical support rather than pedagogical

support began to outstrip the ability to supply. Another development was the rapid increase in the availability of library journals and other information resources in electronic format that was fuelling demands for networked access from off-campus, an early example of the power of e-learning to transform access to information.

Southern's first Learning and Teaching Strategy (Southern University 1999a) promoted e-learning for its role in enhancing flexibility of access to learning opportunities for students and a Learning and Teaching Development Initiative fund was established through which staff could bid for funds to undertake learning and teaching projects. The outcomes were monitored by the Learning and Teaching Committee that was chaired by the Pro-Vice Chancellor. Some Schools began to take a strategic approach designed to foster adoption and diffusion of e-learning among groups of staff beyond the innovators and early adopters by using these funds to release staff to develop resources as a part of planned curriculum developments. In other instances, the funds were used to appoint an e-learning support post located in the School. As this was done piecemeal there was lack of consistency over the designations and grading of these posts. Some were what might now be recognised as learning technologists, offering a combination of technical and pedagogic support, others were IT technicians. In other Schools, the innovators and early adopter academics continued to undertake their own projects without much obvious direction at School level.

Matching - Fitting a problem from the organisation's agenda with an innovation

As staff and student use of general IT facilities grew by the late 1990s, the demand for storage space for personal collections of teaching, learning and research resources outstripped the capacity of the disc space available on central servers and a more systematic method of organising, indexing and retrieving these resources was required. Solutions were sought by IT Services for a document management and indexing system that was easy for all staff to use with storage areas large enough to hold growing repositories of teaching and research data. The need to have authenticated access to these resources as

well as to electronic library resources from off-campus locations was also becoming an important influence on developments at this point.

Our external environmental scanning was revealing that a growing number of commercial virtual learning environments (VLEs) that integrated the three building block components of communication, content management and assessment tools within one software package were coming on to the market. These appeared to have potential for replacing the individual packages that we had been using up to that point and were also reported to be simpler to use, so we reviewed some of the market leaders and identified one as a potential candidate for institutional adoption.

While we were undertaking this review, development work was continuing in IT Services to find solutions to the issues of document management and authentication referred to earlier. A paper summarising the position about "Electronic Delivery Systems", including internal and external solutions, was prepared by the Head of IT Services in September 2000. More space was given in the document to proposals about the revised approach to the administration of document storage and retrieval than to e-learning. It proposed that workgroup shared areas should be established to "serve each community of interest" and be managed by trained information managers. Each workgroup area should be indexed by a separate catalogue to facilitate searching. A simple posting tool could be used to add documents to each workgroup area. The aim was to start with the administrative sections of the organisation where there was less need for "organisational cultural development for the systems to be accepted". A more piecemeal approach could be taken to electronic delivery of academic programmes because the University "hasn't declared an organisational policy of moving all courses to a common electronic delivery approach". The paper ended with:

> There is clearly much commonality in principle between admin systems and learning delivery systems and it may be that a common system either bought in (e.g. WOLF with bells on) or developed here (we have the knowledge) may be the best solution. (Hall 2000)

In recognition of the pace of external developments in e-learning platforms, it was proposed that some demonstrator sites using commercial VLEs should be established and evaluated in order to investigate their potential for e-learning.

However, before these pilots had even begun, the ideas and the systems had been synthesised by the Head of IT Services into a learning system as well as an administrative one, referred to as a managed learning environment (MLE), but for simplicity I will continue to refer to it as the in-house VLE. It did incorporate some of the features of a VLE, document up-loading, document management and search tools and authentication of access that personalised the view for the individual gaining access. The longer term aim was to integrate it with other university management information systems to create a full MLE. An uneasy, for me, co-existence between this in-house VLE and commercial VLE counterparts we were using in pilots began. Further developments to the in-house VLE took place in partnership with one School that had a specific problem of providing student access to its learning materials from off-campus. At the same time, the adoption of commercial VLEs by other universities was becoming more widespread. It seemed as if the University was being left behind corporately while a few of the Schools individually were gaining prominence externally for specific e-learning developments such as a high profile online course or online resources that were recognised as innovative by their discipline or professional communities.

At this point, as I prepared the report for the DfES on the position of e-learning within the University that had been requested by the Vice Chancellor, noted in the previous chapter as the trigger that prompted the research, I reflected on the diverse characteristics of e-learning development within the Schools that could be observed.

In School A, e-learning was promoted top-down by a strong opinion leader and supported by the Head of School. They continued using an in-house enhancement of the original platform provided for computer conferencing. Centrally provided resources had been used strategically to promote diffusion through several projects and to appoint a School-based learning technologist.

This School became involved in developing a programme for the UKeU that was created in the UKeU's bespoke VLE. Their e-learning activities attracted much interest from the business academic discipline external to the University.

In School B, bottom-up innovations were supported by a technician who provided technical support for academics to up-load teaching resources on the original platform provided for computer conferencing. There was initially strong academic leadership for e-learning but this reduced as attentions were re-directed to other priorities. Schools A and B eventually merged into one School and the e-learning model associated with School A became dominant after the merger.

In School C, one department was making use of the original commercial platform for online conferencing but another one of its academic departments had a specific problem relating to external access and authentication to electronic learning resources that they sought help on. The emerging in-house VLE platform created by the Head of ITS was developed and refined in this School. This second department also included a strong opinion leader with creative media skills to design a visually exciting front page for a website that gave access to the resources organised by the in-house VLE.

School D was composed mostly of lone rangers who had the technical skills to create their own websites and make resources available to students themselves. However, because they could understand the resource intensive nature of sustaining in-house VLE developments, eventually they were more supportive of purchasing a standardised commercial e-learning platform than some of the other Schools.

School E had already experienced a management-led approach to developing print-based open learning materials. This strategy that had been developed in response to the challenge of supporting geographically distributed groups of students located in off-campus study locations. With this background, the innovators who had led the way with the print materials migrated to e-learning as

another way of enhancing student support. A School-based Learning technologist was also available to help academics migrate their teaching materials to their e-learning platform which was initially developed as a website.

In School F, the lone ranger innovators and early adopters struggled on alone in their efforts to use e-learning, but this often led them up blind alleys in terms of the technology they used, or encouraged them to demand resources that were in advance of what could be provided, either by their School or centrally.

School G, which had a stronger research orientation than other Schools at that time, initially appeared not to engage with e-learning in any way. Eventually a replica of School C's website was created for them by School C and they began to manage their learning and teaching resources through the in-house VLE for a while until it needed updating, but without technical help to do this, the system gradually fell into disuse.

The diffusion model observed

The different approaches to adoption and diffusion of e-learning that were apparent can be explained in part by elements of the diffusion model. The high degree of local adaptation observable in Schools A and C seems typical of the pattern suggested by the diffusion model when an innovation is introduced into a decentralised organisation (Rogers 2003:398). The innovation, the e-learning platform, had been adapted to meet local needs and in each case was supported by a local opinion leader, in School A by a senior academic and in School C by an individual, who although not a senior academic, was homophilous in many characteristics with the academics, apart from his extended technological knowledge. This combination of homophily and heterophily made him a powerful opinion leader in that School. In School A, the openness of the organisation to the external world, expressed through its contacts with the academic discipline, encouraged links to the external academic community, which began commending the School for its approach to e-learning. In School C, the need to provide authentication for external access to resources provided the opportunity for more localised development and testing of the in-house platform. Many

members of School E had the skills to make optional innovation-decisions, independent of the actions of fellow members. School F was developing in a pattern typical of organisations implementing the strategy of supporting the innovators and early adopters. School G was demonstrating the power of members in a decentralised organisation to ignore the innovation.

Scaling-up

A growing number of academics wanted to extend their use of e-learning. These were the early adopters who wanted to expand their approach, often with other members of their programme team and might, if supported, encourage others who were less engaged with e-learning to follow their lead. We were facing the need to scale-up, but the path ahead was uncertain. There were signs that the Head of IT Services was becoming aware of the risk and cost of being solely reliant on an in-house VLE created by himself, not least because of the time it was taking to develop tailored versions of the platform for each School, and, also perhaps, realising the extent of the technical expertise that rested in him alone. However, he was reluctant to consider the use of a commercial VLE for the mainstream programmes delivered on campus, since he perceived them to be suitable only for distance learning programmes and had an aversion to becoming 'locked in' to one IT supplier. However, given the diversity of current adoption levels and the devolved nature of the organisation, if I suggested that the strategic implementation of a standard, externally purchased VLE would now be more appropriate for the University as an organisation in order to meet the demands for increased use, how would this be received? The remainder of this chapter explores this question through an analysis of themes arising from interviews with the University executive and academic managers.

University managers as champions of e-learning: the balancing act of Senior Executives

Background

The innovation diffusion model emphasises the importance of securing overt support from top management for successful adoption and diffusion of an innovation within an organisation, especially for costly, highly visible innovations

(Rogers 2003) such as broad-based IT innovations (Gallivan 2001) or e-learning (Holt and Thompson 1995; Lisewski 2004; Littlejohn and Cameron 1999; McNaught and Kennedy 2000; Rossiter 2006). The positive attitude of a senior manager towards an innovation is reported to be more important than many other factors affecting innovation diffusion (Damanpour and Schneider 2006). I therefore began my data collection with two members of the University's senior executive, the Vice Chancellor (VC) and the Pro Vice Chancellor (PVC) and explored their perceptions of the way in which e-learning might be taken forward strategically. I wanted to explore their attitude towards signifying their support by taking a more directive approach with the Schools and by encouraging innovation adoption by recognising and rewarding staff who had developed innovative approaches to teaching. Given the highly devolved nature of the University and previous findings identified through the literature, I looked for evidence of tension between a desire to take a managerial approach and a need to act collegially. In addition to this, the interviews also became a site for both interviewer and respondents to construct or assemble a view of our experiences of the University and I found myself drawn to exploring that assembly process as much as the content of what they were saying (Holstein and Gubrium 1997 cited Silverman 2001:97).

Balancing a managerialist approach with collegiality in leading innovation

The VC appeared to be frustrated with a gap that she perceived to exist between the current state of the organisation and the position to which she aspired, but she appeared to be reluctant to embrace the possibility of achieving this position through a more directive management style, as had been adopted by other vice chancellors. When we discussed the place of e-learning in the Learning and Teaching Strategy, she acknowledged that:

> …actually making things <u>change</u> on the ground, er, is probably, er, not as much happened or happening or it is not as easily implementable as one would, as one would hope. (<u>Respondent emphasis)</u> (VC lines 6-9)

She seemed to be clear about wanting to get to the position where the use of technology was as common as using traditional methods, aided by a common set of IT equipment in each teaching space but by prefacing her statement with

query about whether it was right or not, she seemed concerned that not everyone would agree with this position or believe that it was the right direction to go in:

> Now, it might not be the right thing for us, but I would like us to develop a spec of what we believe should be provided in every learning space as a matter of routine standard, which people have a right to expect in any room, and a programme to ensure it gets there. (VC lines 54-57)

The PVC also expressed a wish to see a more corporate approach taken by Schools, so that in developing their School strategies they were aligning them with University strategies:

> So I think what I would see the Schools' academic plans doing is saying how they engage with the Research Strategy and with the Learning and Teaching Strategy. (PVC lines 396-398)

Yet, having proposed this more directed approach, he continues with a more cautious statement that owes more to a collegial approach than a managerialist position, as he recognises academic autonomy in the determination of academic priorities, especially in research:

> I wouldn't expect everyone to engage with the Learning and Teaching Strategy and the Research Strategy of the University, I wouldn't expect everybody to engage in exactly the same way, perhaps that's more obvious with research perhaps, than learning and teaching, but there are some discipline specific things... (PVC lines 399-401)

This need for gaining consensus in decision making, or for only making small, incremental changes, seemed to be frustrating the VC in particular. She anticipated the organisation arriving at a crisis point, at which decisive action should be taken, but with no strategy in place for this:

> … it is difficult, but I have a feeling that it is something we absolutely have to do something about…..you know, we are going to come a point where we cannot just say, um, we don't we know what we are going to need so we cant do anything or we are just to try doing this little bit. (VC lines 46-49)

Shattock argues that a collegial style of management for universities is appropriate because it is “the most effective method of achieving success in the

core business" (Shattock 2003:88) and that managerial styles that do not involve academics in decision making will not engender the trust necessary for the effective working of the university. However, others have noted that too much consensus seeking and long periods of incremental change can lead to stagnation in the organisation's performance (Summerville 2005) and that organisations that had sustained an incremental approach to change for a long period frequently needed a radical shock to make transformative changes to turn around their performance (Stace 1996). It seemed that the VC had realised that this was the position reached by the University at this time, but she was still held back from making the changes she thought necessary. I noted, as others have done, (for example Bargh et al. 2000), the apparent tensions inherent in the role of the VC, caught between wanting to press ahead with innovation yet recognising the need to maintain a collegial style of management and to consult to gain consensus.

The exchange between us below illustrates this tension, as I try to explore her attitude towards taking a more directed approach towards the implementation of e-learning. I found myself challenged at several points during the interview by her self-confessed lack of knowledge of learning and teaching activity and compensated for this by giving more information than necessary that may have detracted from my ability to probe her responses effectively. I gave a detailed explanation of the e-learning projects that had taken place up to this point, under the 'let a 1000 flowers bloom' approach to encouraging innovation and continued with a prompt about a possible change of approach:

> JH: …but its been a fairly piecemeal approach, and as you say, you are not terribly sure what impact that has been having, so should we be taking another tack? is this the opportunity to take stock and move forward on a broad front, like maybe [university name] has, or [university name], or…? (VC lines 205-208)

Her response to my suggestion that we look to other universities as examples seemed to be taken as a challenge to her awareness of the HE management practice;

> VC: Well I don't know what they have done particularly, more than us. (VC line 210)

> JH: Well, they have said like, that every course should have a unit online, …(indistinct) …but that needs the Schools to buy into that sort of… (VC lines 212-213)

She then continued in this next extract to suggest that her allegiance to the collegial approach was being tested but that she was looking for support before changing her approach and also for assurances of the certainty of a successful outcome:

> I don't know, it feels, I think it's the old problem, you can probably take the horse to water, I am sure what we did was right to do first, because we had to get those that were interested into being committed, the question is, whether its now the right time to change, you have a much better feel than I have. Yes, I would like to, but we could only do that if it's going to work. (VC lines 215-219)

I again felt challenged by her statement that I would "have a much better feel" than she did. I felt let down, rather than flattered, an issue I explore a bit further on.

Levers for change

When I asked her what would make the change 'work', her response again suggests that the answer to achieving change lies elsewhere other than with her direct action:

> I think if there are enough committed people out there. I mean, we could put the money in, but only in the same order of magnitude as we've already been putting in…not a vast amount more. We could do that. (VC lines 224-226)

She continued by proposing to target the available funding for learning and teaching to Schools one at a time, rather than dividing it between them each year, which had been the practice to date, so that each had a larger resource that might encourage them to make more fundamental changes in learning and teaching innovation, to take a bigger leap. However, she qualified even this approach by calling it a "pilot" (line 206) and expressed concern about the adverse reactions of the Schools which would not receive any funding in the first years using this approach:

> The trouble is, it has the downside of leaving those who aren't committed outside in the cold with not much chance of, er,...making make it harder to pick them up later, ...maybe. (VC lines 244-246)

The PVC also favoured this approach of using funding for projects as a lever for achieving change to learning and teaching approaches in the Schools but he too seemed unwilling to be more directive:

> It may well be that we have got to look at a project, or a product, on a grander scale and *sort of* challenge the Schools… to identify a programme which would be a prime candidate for, erm, for electronic delivery or *possibly* for distance learning (PVC lines 357-362) (*author emphasis*)

They were both unwilling to recognise that choices over resource investment had to be made to make e-learning viable (Salmon 2005:204)

Attitude towards encouraging academic staff to adopt innovative teaching methods

During the interviews, both VC and PVC acknowledged the importance of considering the learning experiences of different kinds of student learner, particularly the widening participation student, and those coming along in the near future who would be paying higher tuition, or top-up fees. However, when I probed their views on academic roles and the place of reward and recognition for encouraging academics to engage with innovation, in addition to their responses indicating an attitude that was more managerially focused than collegial on this topic, they also suggested to me that there was a lack of linkage between their perception of the academics' role and achieving the changes associated with enhancing the student learning experience. Trowler and Knight's work suggests that this might be attributed to an over simplified view of change management that is typical of those adopting a technical rational approach (Trowler and Knight 2002) and evidence of under-theorising the role of individual academic staff (Trowler 1998).

I am drawing these observations and the comments that follow from the analysis of a lengthy 'story' constructed by the VC in response to my question about whether she thought the University valued teaching as much as research, during

which she justified her position on academic roles to me, by suggesting that academics could not be trusted to understand reward for teaching as a way of encouraging innovation, but that it might only serve to reinforce entrenched and undesired approaches to teaching when the University needed them to be doing more research or income generation activity. She began by stressing what a difficult area this was:

> Yes, I think, I think this is a very difficult thing, thing, to handle. What… I very firmly believe is that every member of academic staff ought to be doing something other than teaching… (VC lines 273-275)

So what should they be doing? The traditional elements of the academic role include teaching, research, academic administration associated with course matters, and external community engagement, but this activity is dismissed as not counting in the new order:

> …and I don't mean, er, the administration that goes with teaching, and I don't mean turning up to the odd committee. (VC lines 275-276)

For those who have appropriate backgrounds and skills, research is what they are to be encouraged to undertake, partly to ensure that the University meets the externally driven requirement of the subject benchmark statements, but what the rest are supposed to do in addition to teaching is not clear, it is just something else:

> I think they ought to be doing something else, and in some people's case there isn't any doubt that is research and that's great and I wish there were more of those at the moment, because I do think we are going to have credibility problems in some areas with benchmarks… but not everyone can or wants to do research, and it wouldn't be right for everybody to do so… (VC lines 276-285)

It seems strange that research, a fundamental element of academic endeavour, is not regarded as appropriate for all the University's academic staff, so what are these individuals who are not research active supposed to do? She suggested it could be professional practice with the community of the professional area that they left to move into higher education:

> Now, the anything else can now be so much more, can be quite a wide range of things, er, but in many cases its actually getting out there and doing or being part of what ever it is that is their profession, beside teaching. (VC lines 288-291)

I reflected with a sad irony on the gap I perceived between her rationally constructed view of the University 'world' that she was presenting to me and my own understanding of it. Far from collaborating with me, the interviewer, in constructing reality (Holstein and Gubrium 1997 cited Silverman 2001:97), she was actually challenging my reality. In my experience, gained from many years of organising inductions and staff development for new academic staff, the majority of those recruited in recent years had professional experience and qualifications that matched the vocational nature of the courses they were teaching, but that did not necessarily equip them well for the traditional academic research activity that was now being demanded of them. Furthermore, of those who had been in higher education for some years, many had lost the professional credibility to "get out there and do or be part of whatever it was they did before they started teaching", as the VC herself recognised:

> ...and I suppose [School] is probably one of the areas which is most obviously that, but they've got a problem, …I mean, [Head of School] won't be delighted to be quoted, but there are some people, he wouldn't dare let them out there and do it because they are not capable… (VC lines 291-294)

This desire to change the focus of academic work at the University is clearly a management challenge that is causing considerable anxiety, and I was made to feel as if my suggestion about the need to value teaching was in some way subversive, as in this next example:

> …what worries me is that when we have this sort of conversation about valuing teaching as much as research, that that will encourage the people who only teach, and probably do it very well in some cases, and don't do anything else. (VC lines 285-288)

A few lines after this she was referring to our discussion not as a conversation but as an argument, suggesting that valuing teaching would actually be giving the wrong message to academics:

> …and it really worries me that when we have this argument about valuing teaching as much as research, then that will make the people who don't do anything other than teach, who in some cases have been teaching probably extremely well, exactly the same thing for the last ten years, will feel 'ah well I knew I was right all along', and that's not what I want, and that's the problem. (VC lines 296-301)

She continued to assert that the University had made moves to recognise and reward teaching, but again in a way that made me feel as if I had committed a political error of judgement and was being reprimanded for it:

> I know that there is a perception that we don't value teaching as much as research, but I don't totally think that its justified... (VC lines 301-302)

As evidence that the University did value teaching as much as research she referred to a recent appointment to a personal Chair for excellence and national leadership in teaching. However, her comment also suggests that the roots of the problems of academic role could be found in the fact that appointments to the title of Professor, the pinnacle of academic achievement, had been given in the past for achievements in areas other than research or academic leadership:

> …the Professorial Standing Committee, having swung very much initially from the position it found itself in, with er, the title of professor, as opposed to established chair …being…for all sorts of things…not often much connected with research…have made sure that the next appointments made were very research focused, and has now revised its criteria… (VC lines 303-307)

This confused picture of the nature of the academic role would be reflected further into the research in the perceptions and activities of others I listened to.

Risk taking as champions of e-learning, or risk aversion?

A principal inhibitor to acting as a champion for e-learning innovation appeared to be the risk aversion exhibited by both respondents. I noted little enthusiasm from either for the risk-taking and commitment that has been reported to be necessary to make significant changes in e-learning implementation (Holt and Thompson

1995; Rossiter 2006), nor support for a more directed approach to managing change that would be needed to standardise on one e-learning platform across the University. This risk aversion appeared to be a particularly strong feature in the VC's responses. She only appeared to be willing to support action that could be demonstrated to "work" or where the outcome was certain:

> Yes I would like to, but we could only do that if it's going to work. [she laughs]. (VC line 218-219)

Sometimes she suggested she did not have enough information to base her judgement on:

> I suspect, I am not overly sure and this is not terribly much based very much in fact. (VC line 6)
> *and*
> …if we are far down that road, I don't know about it. (VC lines 60-61)

These statements about her lack of knowledge of learning and teaching activities made me feel uncomfortable during the interview. I seem to have taken this as an implied criticism of my role and my defence mechanisms come into play (Patton and Appelbaum 2003). I take up far too much time throughout the interview by providing explanations about what projects are underway, as if I felt it necessary to justify my being. My concentration on providing the VC with this information detracts considerably from my ability to probe some of her responses in detail. I do not take the opportunity to probe her responses with follow up questions, for example, "what do you mean by…" "can you give me an example of that…", or "why do you think that is the case?" as in this example:

> VC: …but we're really grappling with whether, when we try to encourage students with different backgrounds to come, whether they have different learning needs. (VC lines 107-109)
>
> JH *(feels need to give more information rather than probe what she means by this interesting statement):* Yes, we have got a project underway to track the experiences of mature students under the widening participation banner that will take place over the next 12 months. *(Then moves on to the next question on the schedule)*. Do you think the international partnerships are changing? (VC lines 113-115

Rather than me being in control of the interview, it was she who, on several occasions, brought the interview back on to the topic, frequently by ignoring my interventions and continuing with her point as soon as I stopped talking. On the other hand, she made one comment, embedded in an earlier reference I have quoted, that contradicts my perception of her criticism when she suggests that I have a greater understanding than her of the readiness of Schools to accept a more directive approach to change:

> I am sure what we did was right to do first, because we had to get those that were interested into being committed, the question is, whether its now the right time to change. You have a much better feel than I have. **(**VC lines 216-218)

I could find little in the PVC's responses to suggest that he was more willing to adopt a directed approach to achieving change. He made several references to the need to gaining 'buy-in' from the Schools and to the difficulty of ensuring that potentially competing strategies were integrated:

> And I think the operationalisation of the whole of the strategy requires a buy in across the University and a lot of joining up, and that is what is difficult. (PVC lines 78-80)

However, he was only prepared to "sort of challenge" the Schools to take action to secure this, and when we discussed an issue involving attempting to change the attitude of one of his executive colleagues towards academic reward and recognition for innovative teaching, rather than suggesting positive action, he used the phrase below that suggested such a tentative approach:

> Yes, let's just nibble away. (PVC line 348)

This sense of collusion between us, constructed through the interview, suggesting that he might be supportive of a more directive approach to innovation management, turned out to be illusory in the longer term. His position actually was similar to that of other PVCs who reported elsewhere that they felt they had responsibility to achieve university strategy but without the managerial power to make it happen (Smith et al. 2007).

Potentially conflicting positions between Senior Executives

I identified some underlying differences in approach to change management between the VC and PVC that surface later on in the case study. In addition to the indications of risk aversion outlined above, the VC was also cautious about funding streams. With reference to developing new partnerships with other universities, she could see some benefits but is also cautious about the financial commitment:

> …there will be an interesting challenge around exchanging learning and teaching materials with them, which should be very useful, and exchanging staff, I have to say, but it does make me wonder where is the money for any of that going to come from. (VC lines 121-124)

The PVC, on the other hand, while acknowledging the funding pressure, seemed less driven by it:

> Now we have we got to look for those additional revenue streams but not be driven by them. (PVC lines 39-40)

He was also aware of the potential for the position taken by the VC to lead to a division between those who can only teach and those who only do research which would be divisive:

> …I think it's not having everybody being a five star researcher, because we have got to recognise where we are, but it's building on what we've got without creating two cultures… (PVC lines 310-312)

However, in the last part of this next statement he indicates that he is uncertain of the direction underlying the major change initiative relating to academic roles:

> …that comes back to developing staff and changing staff and changing staff roles so it's a vital part of taking us from where we are to where we want to be, *wherever that is***.** (PVC lines 405-407)

This again confirms the conclusion drawn by Smith et al. (2007), that the strategic influence of PVCs could be limited by the VC's own vision. So, far from finding a champion for e-learning, there is little evidence here that either of these

two senior executives would be likely to provide the much needed compass to steer me through the swamp of the organisational messiness that was the reality of technological change management in a university (Cornford and Pollock 2003).

Reflections on interviews with the Senior Executives

Far from perceiving the potential for e-learning to transform the face of higher education, and despite using the Bourner and Flowers (1997) reference to 'high tech' and 'high touch' in one of her annual addresses to staff, the VC refers to it in very practical terms; for improving presentations in classroom, for delivering lectures to remote sites, or for supporting different forms of student collaboration on projects. She describes the promotion of one of the national e-learning initiatives at the time, the UKeU, rather dismissively as "hoo-ha". The PVC, on the other hand, has a more visionary view of the potential for e-learning to become a vehicle for creating an internal learning community within the University, joining staff and students together and drawing adults into education through distance learning access courses. According to Bates (2000), having a strategic vision like this for e-learning, that understands how it can be used to change the core nature of the university business, is necessary for sustained progress. However, as this case shows, it appears to be difficult for senior managers to grasp the complexity of implementing e-learning and demonstrate the boldness needed to take the necessary risks. Furthermore, the divergence of perceptions about the potential for e-learning offered by the VC and PVC that I noted, perhaps related to the degree of risk that each felt prepared to accommodate in order to move the strategy forward, was a factor that was to become important in the later stages of this case.

They both exhibit clear tensions between the TR and collegial approaches to managing change, particularly expressed around the lack of clear articulation of the academic role. The priority management issue for them is the balance of academic staff workloads, the nature of academic activity, and the extent of a much more radical change that they perceive is needed in this area. They identify that a key priority for them is to encourage staff to move from a mono-dimensional, teaching-only role to a multi-dimensional academic role, preferably

leading to an increase in research outputs or enterprise activity. Their rationale for this is no doubt sound, the University is vulnerable financially because it relies significantly on its teaching fund income, and greater emphasis is being placed externally on research informed teaching, but if this 'big picture' is not making sense to other members of the university because their networks are not "tuned in the same way" (Grant 2003:83) there is likely to be resistance to change. The way in which the change to academic roles is conceptualised in their responses does not offer much hope to those willing to change but wondering how to go about it, nor does it offer any indication of what the "anything" they are being encouraged to undertake might be.

This need to address the core feature of a successful university, the activity of its academic staff, seems to militate against making any real inroads into moving towards e-learning at this particular time. It seems unlikely that the University can move on from the Matching stage of adoption of e-learning while it is still identifying the problem that e-learning might solve (Rogers 2003). The additional demands that e-learning will make on academics' workload, changes to their work patterns and threats to their academic identity, over and above the move to becoming research-active, need to be seriously addressed if the University is to move e-learning beyond the early adopters. Just how difficult this might be became apparent when I moved on to consider the perceptions of academic managers.

Potential for subversion of strategic intent: Interviews with Academic Managers

Background

A few months after these interviews with the two senior executives, the new corporate plan for 2002-2006 (Southern University 2002) was introduced that included the strategic priority to "Implement developments in learning and teaching informed by best practice from across the sector" with the associated target to "Ensure that all learning programmes incorporate a significant element of flexible delivery" within four years. However, no further specific methods or "mechanisms" were identified through which flexibility should be achieved, for example e-learning, nor were any intermediate annual targets identified.

Whereas another strategic priority, to increase research outputs, had a "Mechanism" associated with it that stated that University expected "all full-time academic staff to be engaged in funded research and/or enterprise activity by 2006/07".

As the VC had demonstrated a strong aspiration to adopt the TR approach, in that she felt a change in academic work patterns was necessary and that targeted funding might be a tool for achieving this, I planned my next set of interviews with those who had responsibility for the line management of academics, the heads of academic departments. These were academics who had been appointed to provide academic leadership and management. They were expected to bring about change by using the tools associated with a TR approach; appraisal, staff development and training, in securing what the PVC had described as an individual academic's "contribution to the University" (PVC line 293). The innovation diffusion model suggests that champions need not always be senior managers and that they can emerge from among middle managers. However, in the collegial culture of the university organisation, other forces are at work that may actually cause these 'middle managers' to distort the progress of innovation diffusion. It has been identified that those at the meso-level between the organisation and the individual, who are responsible for implementing policy through management action, frequently adopt a more collegial approach with their colleagues that can lead to a significant gap between the original policy intention and its actual implementation that is unforeseen by the senior managers who originated the policy (Holt and Challis 2007; Knight and Trowler 2001; Stace 1996). Furthermore, they can still hold to this approach, even if they recognise that their current practice is actually inhibiting innovation (Salaman and Storey 2002).

Aware of the opportunity that academic managers have to influence the innovation process, I explored their perceptions about encouraging academics to adopt e-learning. I focused in particular on their perceptions of one of the hallmarks of managerialism, the appraisal process, and their opportunity to use development opportunities to shape the 'contributions' of the academics they managed, to encourage, among other things, the adoption of e-learning, as envisaged by the senior managers. By using an indirect approach to

questioning, I hoped to identify their potential for acting as champions for e-learning.

Purpose of appraisals

I focused particularly on the appraisal process and staff development, since these were clear examples of how a technical rational tool might be used to foster the adoption of e-learning. I found that although they attempted to use the 'right' TR approach by conducting meaningful appraisals and setting objectives relevant to the strategic plan, their efforts seemed to be sabotaged by another force at work that is revealed further on. Charles illustrates this distortion of the TR process by initially explaining that he follows a structured process for appraisals:

> [I have] an initial meeting with staff in the autumn term and then again in March/April, using the form developed in the [School], to discuss goals relating to teaching, research, business development and professional knowledge. The review draws upon an individual's own perceptions of progress, their teaching observations, TLAS and any other relevant information and includes identifying development needs. (Charles)

However, he admits a bit later that the process is not as managed as it appears and he even hints at an underlying resistance to imposing objectives on his academic colleagues and of the existence of a much messier process:

> There is not a clearly defined system of linking individuals' development plans with the [School] plan, it is a useful mindset to have, but the reality is messier, it cannot be done in a flow chart way. Tasks can be established when they make sense to people, not when they are imposed. (Charles)

Some of the other respondents reveal a significant underlying factor that appeared to be contributing to this messiness that might be distorting the appraisal process as a vehicle for encouraging academics to adopt more innovative approaches to teaching such as e-learning. For several of them, the principal outcome of undertaking appraisals appeared to be the fulfilment of an administrative driver to identify specific teaching duties and units taught, rather than identifying opportunities to enhance student learning or to develop

innovative approaches to teaching. There appeared to be no room for discussion about staff development needs for learning and teaching at these meetings, as Lucy suggests:

> The issue at appraisal is one of seeing how an individual's 18 hours are used, [I] would love to be able to give two hours for learning and teaching developments to committed staff but the resourcing model will not allow this. (Lucy)

Their approach to appraisals seemed to be driven by administrative budget managers who had the task of filling timetables and ensuring the full utilisation of each academic's allocated contact hours, which led Graham to observe that there was little time left for other activities:

> Staff in [School] have on average 16 hours per week and every research student is up to their 6 hours per week, so there is very little slack in the system. (Graham)

The implications of this high teaching load on academics and its impact on their ability to engage with teaching innovations such as e-learning did not appear to have been explicitly identified in the past, it had been what Graham described as a "hidden problem" until he had analysed the quantitative information on staff workloads in his spreadsheets. Armed with this information he was trying to move to a position where he could plan a three year development cycle for individuals and move beyond the rather trivial approach that had been adopted up until that point, where:

> Duties have been allocated in a rather lightweight approach to appraisal. (Graham)

Subversion of the appraisal process?

I was initially surprised at the extent to which these academic managers appeared to lack the ability to influence academics' activities through the appraisal process, which had been proposed as an important instrument of achieving change by senior managers, but as was becoming increasingly

apparent, the TR ideal was in reality much messier and that these middle managers were actually subverting the process. This did not appear to be intentional sabotage, they were reacting to other pressures, as I illustrated above, and also discuss further on, but their picture of the appraisal process was far from one in which they were considered as "important occasions for consideration of achievements and developments – as opportunities for reflecting and learning" (Knight and Trowler 2001:162). The sheer number of appraisals they had to undertake, figures of 30 and 31 were mentioned by two respondents, must have been one factor leading to a fairly superficial approach. This is double the optimum size for an academic department of 15 (Smith 2002) so any grouping this large must raise doubts about whether one individual can manage it successfully (Smith 2002). The other major factor influencing the outcomes of appraisals seemed to be the demand of administrators to fill timetables to the maximum with contact hours of 16-18 hours a week for each individual. The process through which they might demonstrate their championing of e-learning was fundamentally flawed. The innovation model suggests that formalisation is one of the barriers to organisational innovativeness (Rogers 2003) and this was a barrier here on two accounts. However, other factors were involved that encouraged this situation to remain the status quo and not be challenged, as I will now explain.

Engaging with flexible and e-learning

Their understanding of the drivers for using e-learning were limited. Lucy suggested that widening participation was a driver for more e-learning within courses and Martin reported that there were government initiatives to develop more open learning programmes in his professional area (social work) that would drive developments in e-learning in his academic group. Generally however, their feeling seemed to be that, as Barbara puts it, "we should be making more of it" but that they were unsure about what the 'more' should be or what 'it' looked like. At present they saw e-learning only happening in isolated pockets where the innovators had developed it to support their own teaching. Barbara referred to two individuals as examples of good practice in developing e-learning, but both of these had received specific development funding for these projects in the previous year to allow their time to be allocated to this.

Graham was aware of the debate surrounding the challenges offered by e-learning to traditional campus-based university education, but he offered a view of higher education as being a social experience that led him to be sceptical about the claims that e-learning would lead to the death of universities as we know them, because:

> University is a social experience, the social side is important. (Graham)

Their perception of the students' views towards e-learning as a barrier to academics' adoption is discussed further on.

Charles, who had been involved in partnerships with employers to develop e-learning resources for work-place learning, was most critical of the ambiguity of the University's approach to e-learning. Although he acknowledged that the set-up costs were high, he thought that the University should take up any opportunity to be involved in further externally driven e-learning initiatives such as the UKeU, but that the University did not seem willing to take the risk needed:

> We need to develop more of a vision for e-learning to allow us to articulate why we are engaged with it. (Charles)

He described to me how the VC had recently attended the opening of a conference he had organised on employers' use of e-learning in the work-place, and although she talked about the value of e-learning in a generic way, he reported that she had not referred to it as key objective for the University.

These perceptions of the drivers for using e-learning represented a variety of viewpoints but were generally representative of the mainstream majority, which without strong championing from senior managers, were unlikely to be taken any further, given the restraints that were exercised by the formal processes I have identified earlier. They themselves were not exhibiting any inclination so far to act as champions of e-learning personally, nor did they have the TR authority to use appraisal and development opportunities to even encourage it. The issues they raise in the next section about student expectations and preferences

emphasise the social element of learning in higher education that also militates against lecturers' adoption of e-learning.

Learning as a social experience

They perceived that students' expectations and preferences would influence the use of e-learning to some degree. Charles thought that international students coming to study at the University would expect access to the tutor to be in the classroom and not online:

> Overseas students come here expecting a taught programme, so it was decided that it is not appropriate for this group at the moment. (Charles)

Graham reported that e-learning had encouraged his part-time postgraduate students to get together in each other's homes to study, suggesting that they were preferring the face to face social encounter rather than the virtual:

> [In-house VLE] works better with part-time masters students than full time undergraduates. On [Masters programme] students began to meet at each others' homes to study as a result of getting together online first. (Graham)

Martin suggested that his subject required social engagement to develop concepts that were themselves socially constructed:

> Social Work is a very people oriented subject and the cohort experience draws on that. (Martin)

Barbara suggested that her students needed close direction to develop understanding in her discipline:

> [I] teach units with a strong mathematical element and it would be difficult to see how students would manage if they were left to their own devices. (Barbara)

Lucy suggested that books provided primary reference sources in her discipline:

> Law lecturers and students are used to working with books, not IT. (Lucy)

Barbara thought that those teaching what were perceived by students to be more interesting subjects were in a stronger position to innovate than those teaching the ‘difficult’ subjects because:

> It is easy to innovate if you have a 'buzzy' area to teach. (Barbara)

There was also the recognition that more attention should be paid to how students learn to develop as critical thinkers generally:

> We don't do enough to address how they take notes, we just give more content, we don't address how we raise the level of their thinking, but perhaps this is against their will, they don't want to be pushed. (Graham)

However, the reduction of contact hours that had been enacted had led to fewer opportunities for students to engage in discussion to develop conceptual understanding:

> Students don't have the opportunity to test out their understanding like they used to have, they don't develop deep learning. (Lucy)

This rationalisation that the lack of e-learning adoption was due to the students' expectations was to surface even more strongly later in this work during the interviews with the mainstream majority adopters, but was clearly supported by these line managers.

Role of the academic

In addition to perceptions about the student learning experience, the academic managers offered other reasons as to why academics might be reluctant to adopt e-learning. Martin offered what he described as the “traditional view” that if they put all their materials on the web they will be out of a job because the University will no longer need to employ them to stand in front of a class, but even if they did not do that they would find themselves in a Catch-22 position of still being in the wrong for not complying with the new requirements:

> The traditional view is that if staff get materials on the web, they will be out of a job, and if they don't comply with new requirements, they are out of a job. (Martin)

Lucy offered the explanation that the identity of academics was related to their position as expert in the classroom and this would be undermined through the greater equality in status between lecturer and student resulting from increasing dialogue through conferencing:

> Many law staff see their power eroded by the expectation that they should be facilitating dialogue with students. They would prefer two hour lectures rather than a lecture/seminar arrangement. (Lucy)

Despite reporting this perception of their colleagues' objections, they were able to see that academic expertise, for example in curriculum design and in facilitating student learning, would still be needed just as much for designing e-learning as with traditional learning experiences:

> It [e-learning] has to be considered within the overall delivery strategy, it has to be designed in like any teaching experience. you still have to think through the interaction with the students, you still have to look at the syllabus and think how to get this across. (Graham)

Despite realising that academics believe that they can only teach in the classroom, they stressed that it was their skill in facilitating group interaction that should be valued in e-learning situations:

> Staff are still entrenched with being in front of the class, but they are good facilitators with groups, and this needs to be valued. (Martin)

Perceptions of the academic workload

These reasons offered for academics' reluctance to adopt e-learning were compounded by the need to fill timetables, as identified earlier, which did not give academics the space or time needed to develop new pedagogic approaches. This and other pressures were responsible for a situation where there was little spare capacity or slack time at any point during the year. Barbara described it as being "subsumed by the relentless grind here" and Martin reported that "There

are continual demands on staff time all year round now". Some of these pressures seemed to me to result from the pedagogic approaches currently in use, such as the perceived need to be continually available to support students individually:

> Many staff are involved in providing one to one support over and above the 18 hours. (Martin)

or the workload associated with high levels of student assessment and the growing quality burden:

> There are many other pressures that detract from concentrating on learning and teaching, like the assessment load and demands of QAA processes. (Lucy)

For many academics, the pressure to research and publish was an imperative:

> The bulk of staff are senior lecturers with a responsibility to publish and engage in consultancy, so it is difficult to balance these demands with those of developing online teaching. (Martin)

Rather than seeing the opportunity to look at e-learning with a view to helping academics overcome some of these burdens, the very fact of encouraging them to engage in e-learning was perceived to be adding to their burden, as Martin suggested:

> The responsibility for engaging staff with it [e-learning] starts with yourself, but you are loath to add something extra to an already loaded timetable. (Martin)

Individual factors

They recounted several other factors that amounted to individual choice, such as one's own preferred style of teaching, the values one holds about the purpose of higher education, lack of confidence due to age, lack of enthusiasm for it or lack of knowledge about how do it and the need for competent IT skills to be able to pick it up:

> Individuals' teaching styles vary, it's an individual thing. (Barbara)
>
> It's not what HE is about. (Charles)
>
> The staff base is relatively old. (Barbara)
>
> Few staff get really excited about it, though. (Martin)
>
> There is an ignorance gap, staff do not know what it means to develop teaching in this way. (Martin)
>
> Those who are good at IT pick it up quickly. (Lucy)

Confused conceptions of academic identity

The administrative drive to fill academics' timetables is leading to academics feeling vulnerable if they are not in the classroom, but their justification for high levels of classroom activity is not articulated in terms of self protection but as a student need or expectation, which moves the point of resistance to innovation adoption away from the academic and on to their students. This is illustrated by comments above such as academics exceeding their 18 hours to support students, the belief that students cannot be left to their own devices, they need to be told what to do in lectures, and they cannot be challenged to think for themselves. This conception of students' learning needs supports the classroom-based identity of the academic and is likely to result in lack of compatibility of e-learning with academic identity in this University. The opportunity to redefine their professional 'sense of themselves' (Hart et al. 1999) to address e-learning is therefore diminished by the administrative driver to fill contact hours. This emphasis on the classroom-based identity can also be seen as a mechanism by which academics are enhancing their academic autonomy, it is not just self-protection.

The opportunity to take risks at a personal level is not encouraged, if academics do innovate but fail to secure positive student feedback, the quality process will highlight this and bring criticism down on them.

A heavy workload is not conducive to innovation because there is no slack in the system. Those who do innovate are those who don't have to learn a new skill,

IT, before they learn how to use e-learning, and they see how it can help them personally with their own teaching. They are the innovators and lone rangers, so as models for diffusion, they are not that helpful, others see them engaged in e-learning but think “it’s beyond me”.

The current attitude to academic workload privileges research. There is a different level of advance planning for buying out time for research compared with supporting time for learning and teaching development, research hours are included in the timetables but not hours for teaching development.

There are some external drivers for e-learning in the form of professional programmes, but these are initiated outside the University, nothing comes from within, no vision is forthcoming from senior managers which may indicate that control over their intellectual agendas is not as great as often imagined by academics.

Reflections on interviews with academic managers

The purpose of the interviews was to learn more about the extent to which these individuals were in a position to achieve the transformation of academics and their work patterns as envisaged by the senior managers and then where and how encouragement to adopt e-learning might feature in this. In acknowledgement of the TR approach, appraisals were being done but in such a way as to emphasise the classroom identify of the academics, who were left with no alternative to do anything other than teach, leading to a “disjunction between policy as articulated (the vision) and as practised” (Knight and Trowler 2001:62). However, reinvention of policy by those lower down in the hierarchy is an important feature in innovation diffusion within an organisation (Rogers 2003; Holt and Challis 2007) but it appears to be a counteracting force in this case.

For the academic managers, it is safer to continue with discussions about timetabled hours and not to challenge the status quo, as other middle managers had found (Salaman and Story 2002). They realised that the academics’ current pedagogical knowledge would still be of value in the new e-learning context, but

they did not feel able to convince their colleagues of this and to make changes to adopt the innovation.

Conclusion

This chapter has provided the background to the case site using data drawn from its policy documents. The importance of the role of the innovation champion was noted and two groups of staff were identified where this role might be located, senior executives and middle managers. The potential for two senior executives, VC and PVC, and academic managers, to act as champions for the adoption of e-learning was then examined through interviews. The VC and PVC held conceptions of e-learning and the academic role that appeared to have the potential for divergence and the academic managers were not encouraging academics to adopt innovations such as e-learning through formal mechanisms available to them such as appraisals. This inability or unwillingness to act as innovation champion to encourage adoption in this decentralised organisation was the first indication in this research that assumptions about this role in the innovation diffusion process may need amending.

I move on in the next chapter to a series of interviews that explored with academics their level of knowledge of e-learning, how they find out about innovation in e-learning, their perceptions of its impact on their work and on their sense of academic identity, and the contribution of these perceptions to their innovation adoption-decision in the context of a decentralised organisation.

CHAPTER 5: Initial exploration of academics' perceptions of e-learning: the views of mixed category adopters

Introduction

In the previous chapter I suggested that for a number of reasons, a struggle between a desire to manage change through a TR approach and the need to manage collegially could be observed in the University's two senior executives' approach to leading change. This ambiguous position threatened to undermine their ability to act overtly as champions for the adoption of e-learning by promoting a constant message about its value. A dominant issue for them, revealed through interviews, was the re-focusing of the academic role from one of predominantly teaching to one involving more research. However, the TR position does not allow for the distortion of policy as it comes to be understood lower down in the organisation, which the analysis of the approaches of the academic managers in the middle layers of the organisation seemed to indicate was happening.

When I explored the perceptions of the academic managers, I found that although espousing the use of approaches that would have been congruent with a TR approach to change management, their practice seemed more likely to subvert its use. For example, although arranging to have appraisals with academics and recognising the need to engage more fully with e-learning, they did not actually appear to use appraisals to discuss with individuals the sensitive issue of changing their approaches to teaching to accommodate e-learning. This appeared to be the result of the pressure of the administrators' demands to fill up timetables with contact hours. This was resulting in the reinforcement of the 'high touch' academic identity that already strongly emphasised face to face contact with students and this strengthening was as a result of pressure from administrators to fill timetables.

Since there was no senior manager overtly acting as a strong champion for e-learning, and its adoption was perceived to be mainly a matter of personal choice for the individual academic, I move on now to explore the perceptions of academics themselves about e-learning and factors influencing their adoption

arising from this incremental change strategy. Three key themes in relation to e-learning emerged from this focus group comprising a range of adopter categories: changing relationships with students, a re-positioning of academic identity and a widening gap between senior managers' policy aspirations and their chance of realising them. These themes are now explored in further detail.

E-learning and the changing relationship between academics and students

The importance of face to face contact with students

Academic identity seemed realised around organising the learning experiences for students and nurturing their development, and although technology played a part in that, face to face contact between the academic and the student was more important, with e-learning playing a complementary role. Through these academics' comments about students and learning it became apparent that one positive reason for using e-learning was to facilitate opportunities for students to engage in learning by enhancing their access to learning opportunities and resources. However, these resources and opportunities were not intended to supplant the academic; they were designed to augment their physical presence. Julian, for example, suggested that the technology should be used to enable good lecturers to have their lectures recorded so that they could be available to students on demand:

> …where there was a particularly, a very good lecturer, to have it, have key lectures, to have them videoed and keep them, and also to have video links with that, so that students around the University can all benefit from the same really good lecturer. (Lines 95-97: Julian)

Another option for the use of technology was to augment the academic's ability to bring relevant resources together for students into one convenient and accessible e-location. Jennifer told the group about a colleague of hers in another university who had sent her a CDROM he had created for his students, which included all his publications, linked references and video clips of his live presentations. She was very enthusiastic about this way of using technology to provide flexible resources for students that could be used by them at any time:

> And it was absolutely fascinating, I was riveted. I remember spending the whole day just looking at the CDROM (*group laughs*) I thought it was fantastic, you know, I want to do this more often, and send this out to my students, you know, and they could use them as and when they want. (Lines 134-137: Jennifer)

E-learning was seen as complementary to the academic role of interacting face to face with students and their approach to putting teaching materials on the VLE confirmed findings from other studies in which it is reported that the most common use of e-learning by academics in campus-based universities is for enhancing and complementing traditional forms of classroom teaching through distributing information rather than using it for interaction with students (Dutton et al 2004).

These academics did recognise that use of e-learning could enhance students' IT skills, but they also stressed that it was equally important to develop students' face to face communication skills and to nurture them in a safe environment before they go into the world of employment, again reinforcing the need for the academic presence:

> …IT conferencing is something of business life, I think, particularly if you are in the IT industry, but at the same time, for the shrinking violets, we still have to sort of cultivate them to hold their own in a sort of face to face, oral context. (Lines 68-70: Richard)

This emphasis placed on the face to face learning experience was reinforced by their belief that students coming to study at this University were specifically choosing this campus-based type of learning experience in preference to a distance learning experience because of the opportunities it affords for socialising with others of their own age-group:

> Isn't it that the majority of our intake are, sort of, 18-19 years olds, and therefore it is partly, probably mainly, the social aspect of the social interaction with other students within the classroom environment or within the lecture theatres, outwith the campus, sort of, because they make their contacts and friendships in the class room and they maintain those, sort of, extramurally. (Lines 292-296: Richard)

Furthermore, students might be disappointed if on arrival they found that they were expected to spend significant amounts on time online:

> Plus there is a perception problem, if you, if we start doing it [e-learning], and do it well, as I am sure we would. Students come to Southern for whatever reason but they come and find everything's online, they start to think 'am I getting my money's worth?' Is it cheapening the sort of perception of the course, you know, if so much of it is available on the Internet? (Lines 284-287: Julian)

This importance of the face to face learning experience was further reinforced by their perception of the student as paying customer, even to the extent of suggesting that it was changing the balance of power between student and academic. Far from reducing face to face contact with students, the academics felt that this customer orientation was forcing them into providing even more quality time with individuals:

> And I have noticed over the last four or five years increasingly students demanding one to one relationships somehow or other, and if they don't get it in the seminars they will come and stand outside your door, until they do get it. (Lines 319-322: Angela)

Angela's violent image in this next extract illustrates the extent to which academics actually felt threatened by these increasing student demands, as if their cosy reputation for being excellent at student support, as expounded by their academic managers in the previous chapter, was now being gained at an increasing cost:

> …my feeling is that as students become more and more conscious of the fact that they are paying for their courses, more and more they want to buy peoples' time for that money, they want that, they want that pound of flesh. (Lines 317-319: Angela)

An increasing note of desperation about their ability to continue providing this level of support was creeping in to their discussion:

> But somehow or other, we have got to provide that time, that person time. (Line 337: Helen)

Threat posed by students' expertise with technology

Another source of discomfort for the academics was the students' own expertise with the new technologies. Although they appeared to have little understanding of the ways in which students used technology to communicate with each other, find information and collaborate on tasks, they were beginning to realise that it might threaten to change the balance of power between the student and the academic. The growing gap between the students' familiarity with technology and their own is highlighted by Alice who described an initiative undertaken by her students to share resources between themselves online. She was delighted with this demonstration of her students taking responsibility for their own learning:

> …but the students themselves this year, the first years, decided to set up their own website, which I think is excellent, and put their own resources and assignments on them, and that sort of thing. (Lines 221-223: Alice)

However, despite her initial praise for this activity, it was causing her some anxiety because her students were relying less on her for access to knowledge and her role as an intermediary in identifying appropriate sources was being undermined by her own lack of knowledge of the growing range of resources available on the web.

> And I am quite happy to support all that but I don't feel an expert always, you know, I do direct them to web pages and that sort of thing, but in terms of, you know, there is so much out there, I don't,, I don't feel I am an expert in picking out sort of the specific sort of interactive stuff, which I think is really the way its going. (Lines 224-227: Alice)

She actually expressed this as a 'concern' at a later point in the interview:

> Yes, my concern is that students are in very much that way, they very much are into computers, looking at web pages, they often find about universities, they say, looking at the web pages and that sort of thing. (Lines 237-239: Alice)

And her frustration at the students' lack of discrimination over the validity of different information sources is evident here:

> And my thing is that there are these other sources, there is the library and these are really a lot more thoroughly referenced, compared to what's on the web, and we talked about much earlier, about what's reliable and what isn't, you know someone's home page on greenhouse global warming or whatever it is, er, its almost to say, hey hang on, there is that fabulous stuff out there, but … (Lines 239-243: Alice)

This suggests that the academics were uneasy about students moving further ahead than their themselves in the use they were making with technology, maybe recognising the potential of this to lead to a de-professionalising of their work, where the academic's role as a gatekeeper to resources for learning is undermined by the growth of electronic sources (Dutton et al 2004) leading to a downgrading of the status of their academic knowledge (Becher and Trowler 2001) and the rise in importance of new gatekeeper roles such as technical support staff (Dutton et al 2004). They appeared to be reasonably comfortable using the more traditional presentation technologies under their control, such as video or CDRom but the growing range of user-owned technologies presented a threat. Academics like Alice, with her background in a scientific discipline and an epistemology emphasising reliability and validity of scientific data published in high impact-rated journals, are likely to be even more challenged than their colleagues in other disciplines by the growth of opportunities to publish that are now afforded by Web 2.0 technologies.

Academic autonomy undermined by e-learning

Standardisation of e-learning technology

E-learning was perceived to be undermining their expertise as academics in different ways. As identified above, in their relationships with students it threatened to undermine their identity as a subject expert and their expertise as a traditional classroom teacher. A further set of issues was identified that demonstrated that e-learning was perceived to undermine their autonomy as academics because it threatened to lead to a standardisation of approach imposed by administration that would require all academics to teach in the same way. By stressing that they saw e-learning as a complementary approach to learning, they were asserting their right to choose their approach to teaching as they saw fit:

> I only see online as a complementary tool to what we, you know, to what we already do. (Line 346: Alice)

> …I also feel quite strongly that people who want to do the different thing should be enabled to. (Lines 250-251: Helen)

> …if you don't want a PC on your desk and you're not interested in it, it's not your area of work, you should be able to say… (Line 170-171: Richard)

Paul, the innovator/lone ranger who taught computing, vigorously stressed that he needed the freedom to make his own choice of e-learning tools. His academic expertise was threatened not so much by the student issues discussed above, but because someone might take away his right to choose the technology with which to teach. He demonstrated how he would resist attempts by the University to standardise on an e-learning platform by displaying his own expertise and knowledge of such tools:

> Now you are talking about computer conferencing, now all you have to do is to go to Yahoo, create a group and you've got all the tools there. (Lines 511-512: Paul)

He also drew on his previous professional existence to underpin his expert knowledge, thereby dismissing any offer of support from the educational developers:

> I mean, I can do it, because I mean, I used to do it for a living, you know. (Line 160: Paul)

This potential for standardisation of e-learning platforms in a management-driven initiative to increase adoption and diffusion of e-learning, and the threat this posed to innovators like Paul, had been identified by others (Wells 2005) and supports suggestions that relying on innovators and lone rangers to diffuse e-learning innovation might be a risky strategy for managers (Geoghegan 1998; Taylor, P. 1998) because they like to select their own technologies which may not be supported by the university's IT or e-learning departments.

This point above was further exemplified through an extended exchange during the discussion on the extent to which there should be freedom of choice or standardisation over e-learning tools between Paul, whom I categorised as an innovator, but also a lone ranger, and Helen, whom I categorised as an early adopter. Helen's point was that that at some level in the University there had to be agreement on standardisation for an e-learning platform, and in order to encourage adoption and diffusion there cannot be a totally open choice situation, although at a unit level the individual academic would have choice. Paul, however, was adamant that this was not the way forward:

> *Helen*: …I think there is a balance, and I know for us, when the students log on, they get onto our learning and teaching website and every unit is there, but within those units its up to the academic how they use the various bits, but you have got the structure and you've got the support in that way. (Lines 520-523)
>
> *Paul*: Yes, that's why one strategy isn't suitable for everybody. (Line 533)
>
> *Helen*: No, but sometimes a framework can help. (Line 535)
>
> *Paul*: Yes but it still shouldn't be prescriptive, because I might find there is a tool which I'm familiar with which I might find is better than [VLE name] and I want to use it but I don't want a block there saying 'well you cant'. (Lines 537-543)
>
> *Helen*: Yes but, on the other hand, there is the aspect of standardisation, I mean, I think there are some things better than [VLE name] but we've got [VLE name]. If we keep changing, the poor people who are trying to get on board… (Lines 541-543)

This exchange illustrates a tension that is likely to increase in the future, between individuals, students as well as academics, who want the freedom to select their technologies of choice and those who are responsible for managing corporate level systems where there is a need to integrate data and authenticate access.

Lack of appropriate resources

Lack of resources was considered a barrier to the expansion of e-learning for several reasons. One view was that the current network technology was not yet

robust enough to cope with any increase in more sophisticated student use of e-learning, especially from off-campus:

> …I think you've got to, should bear in mind that the technology isn't there yet for everybody for someone to take advantage of the more advanced things… (Lines 111-113: Paul)

They also expressed the opinion that the equipment in the classrooms was not adequate to support an extension of online learning, although Jim's reference below to the need for PCs in seminar rooms reflects his perception of e-learning as complementing his face to face teaching presence rather than changing it fundamentally:

> …there is the ultimate, as far as I can see at the moment, problem is to have terminals available for students to use in all seminars… (Lines 274-276: Jim)

They also recognised the interconnected nature of e-learning, suggesting that if investment were made in one area which led to an increase in students using e-learning, investment in every aspect of the educational experience would need to be considered, or imbalances in their workload would become unsustainable:

> … we, ok, can now actually communicate with instead of 100, now 300 students, unless you have sophisticated online assessment systems at the same time, at some stage, again, you are just going to go under. (Lines 309-311: Richard)

The importance of the existence of a supported, technology-rich environment for encouraging the adoption of e-learning, even in advance of developing a policy for increasing e-learning course development, is noted in other studies (Collis and De Boer 1999). The lack of an easy to use technological platform for e-learning was a significant factor in preventing academics from adopting e-learning, even if they claimed that they could see its benefits for learning (Spotts 1999:95).

Workload

They talked about the problems they faced in their individual contexts and about the stress that affected their working lives generally. These included a heavy

workload and a sense of isolation from their colleagues. All of which supports the view of previous research that the use of "new instructional technologies is a multidimensional problem, as is the introduction of any innovation to education" (Spotts 1999:93). Although the common practice was to put their lecture notes online, the academics did recognise that e-learning could afford more innovative approaches than this but one issue that emerged frequently during the discussion was a lack of time to reflect on one's teaching and to plan for the development of new approaches to e-learning that did more than just replicate traditional face to face approaches. Paul contrasted the limited use of putting lecture notes on the VLE with the richness that could be achieved by adding hyperlinks to other resources in the text, if there was time:

> I mean, putting notes on the Internet is 10 years, 12 years out of date, I mean that's what it was written for initially, yet most of us who put notes on the Internet just put a straight copy over, but the Internet was designed for hypertext linking… (*Murmurs of agreement)* …so as you are reading through it you think 'oh yea that's interesting, what does that mean? Where can I find out more? Then click on that word and go to other stuff. Now our stuff doesn't do that, we don't have the time. (Lines 413-422: Paul)

They appeared to have little time during the year to reflect on their teaching or to undertake the scholarship to enhance their knowledge base:

> I don't want to come across negatively but there is no time, or you have to do something else, or whatever, and you don't have that sit-back time to think, right let's, or you've got a review coming up, or something, I don't know the answer, that's the issue. (Lines 486-489: Helen)

This supports the findings of other studies that have identified a growing fragmentation of academic working time, with a constant flow of demands that restricts extended periods of time that might have been used for research and scholarship (Coaldrake and Stedman 1999).

There were expressions of frustration at the multiple demands being placed on academics, particularly the amount of administration they were expected to undertake, which was leading to a reduction in standards in everything they did. They suggested that they could work more efficiently if:

> …we actually need to concentrate on what we are good at and not try and be second or third raters at lots of ancillary things, which are better where you actually employ somebody who is good at doing that to aid a group

> of people to actually be more efficient in their time. (Lines 207-210: Richard)

This desire to be allowed to specialise reflects their concern at the message that was filtering though from the University executive about the need for more academics to do something other than teach:

> …I think that sometimes what happens is we are expected to do all these things but actually you might be valuable in that area and someone else might be valuable in another area, and there is the feeling that you have got to do all these things, and sometimes you do them all badly instead of being able to do the one thing [that you are expert at]. (Lines 102-195: Helen)

However, this suggests that the executive message was being mis-interpreted, not that the academic should engage more with research or enterprise and reduce the amount of time they spend teaching, as intended, but that everyone had to do more of everything at the same time.

This view was reflected by another respondent who suggested that e-learning should be ignored since there was no time to do it well:

> One thing that always occurs to me is that if we are not going to the best at it, should we even do it? (Lines 359-360: Julian)

Some of them appeared to have become enthused by the idea of e-learning and engaged with it because the adoption decision had been made at a senior level in their School, there was a policy about using e-learning and there was also technical support available. However, they engaged with it without having a theoretical conception of the changed approach to teaching that would be necessary to make a difference to student learning using this medium;

> …all I am doing is replicating what I am telling them and its taking me double the time to put on the web and besides that, the students are getting the notes in retrospect, rather than before the lecture, so does this make any sense, so I need to sit back and think. I almost did it without thinking in fact, for the whole year. And although all my notes are now on the web, on [VLE name], I am not quite sure that it is an advantage. (Lines 497-501: Jennifer)

It was not even more efficient and convenient that their previous practice, which was the main reason for using a VLE reported in other studies (Dutton et al 2004:146).

Other studies comment on how academics' understanding of the pedagogical changes necessary to enhance the learning experience is the most critical aspect (McNaught et al 1999). Yet they did not have the time to obtain greater understanding by attending staff development to find out about new approaches, although this might have been said for my benefit in recognition of my university role:

> The answer is that we probably don't take enough notice of the staff development sessions which are there, because we think we have something better to be done at that particular moment…Basically, we pick it up after the event. (Lines 476-480: Jim)

This was an experience that was far removed from that of academics in other cases where e-learning was introduced through a top-down policy, either at faculty or university levels. Collis and De Boer (1999) used 'rapid prototyping' to support academics develop online courses, McNaught et al (1999) used faculty-based educational services groups to provide support, and Spotts (1999) refers to faculty mentors.

Isolation

I was surprised by the strength of feeling in Helen's expression of the sense of isolation that she felt in her job. She made five references to this during the course of the discussion, and although no further examples were mentioned directly by others, there were murmurs of agreement around the group each time she mentioned it. Her sense of isolation might have been the result of being an early adopter, which set her apart from her colleagues. Her longest contribution on this topic indicates the extent to which she is teaching face to face in the classroom, which then acts as a barrier to contact with colleagues to discuss further innovation:

> …people laugh at me when I say that, but I have never been in such an isolating job. (*Group laughter*) In my whole life, you know, it's so isolating, You don't talk to your colleagues except in the loo or the corridor because you are in the lecture or classroom with your students, or you are beavering away, so there is sort of all that informal and formal networking, doesn't seem to occur, and to actually talk to someone in another School, heaven forbid, you know, so you'll probably find there is always someone, somewhere else, doing something better than you and way ahead, if you just but knew, but not only when you meet them, very interesting, but none of you have got the time, no time, or focus or something. (Lines 461-472: Helen)

This all important discourse between colleagues to develop professional relationships facilitated by networking, noted by commentators on the changing nature of academic work (Nixon 1996) appeared to be absent from the experiences of Southern academics. The fact that people laughed at Helen for commenting on her isolation suggests that the academic community of which she was a member rejected this isolation as something strange and had accepted it as the norm.

Lack of awareness of a strategic direction for e-learning

I referred earlier to the difference of opinion between two members of the group on the extent to which the VLE platform and tools should be standardised across the University. This divergence of opinion might be accounted for by their lack of awareness of a university strategy for e-learning. The encouragement to use e-learning appeared to them to have been driven in their Schools by consideration of the technology first rather than the learning, as several reported:

> In the [name] School they set up something called [in-house VLE] last year, it was sort of tipped down the funnel from the top, so to speak, for sort of interactive internal bulletin boards, part website, part bulletin. (Lines 229-231: Richard)

> To be absolutely honest, someone decided we were going to use that technology. (Lines 253:254: Helen)

Helen, an early adopter, had used the centrally provided staff development opportunities to familiarise herself with the VLE platform that had been introduced in her School and enthusiastically got on with adapting her teaching to encompass the new medium. She gained a reputation within her School as an innovative teacher to whom others turned for support in getting started with e-

learning, but even she found herself realising that she was not clear about why she was doing it:

> …I am perfectly happy to be an operational and implementer and doing the rest of it, but I would like to know the direction and I would like to feel some support. (Lines 266-268: Helen)

Her accounts of helping other academics in her School to adopt e-learning hint at the confusion about e-learning platforms in the Schools. The innovators and early adopters like her are able to cope with the complexity and excitement of having a plethora of platforms, but others need reassurance that they are using the right system and not wasting their time:

> Because I know people say, look, I don't know, look, 'Tell me which one to use and I'll use it'. And I kind of understand that because there is so much, and we get excited don't we? (Lines 523-525: Helen)

Support and networks

Given the overt references to isolation it was difficult to find much evidence of networking taking place among these academics. The innovators and early adopters had the confidence and skills to start using e-learning through their own initiative. Others based in the Schools that had invested in appointing a learning technologist to support e-learning developments found this local support valuable. Jennifer, an early majority adopter, adopted e-learning not so much because she was responding to a policy initiative, but because she found support close at hand to help her with the technology.

> One of the ways how I found out about [VLE] that was later promulgated around the department was just walking down and finding a new chap in our department. And I went and shook hands and said 'hi, who are you and what do you do?' and he started explaining to me about [VLE]… (Lines 491-494: Jennifer)

This support was a start but far from the rapid prototyping support identified by Collis and De Boer (1999) in which a technologist took an academics' teaching materials and transformed them into e-learning materials. The absence of any reference to peers who modelled the use of e-learning, and the importance of

this in the diffusion process, was an issue I noted to explore further in the later stages of the research.

Valuing expertise

A recurring theme expressed by the members of this group was that the University should value everyone for his or her individual expertise. Helen had taken advantage of the technology to enhance her position and identity as a teacher and was threatened by the new managerial emphasis for academics to undertake research. Her expertise as an innovative teacher, and the reputation she had developed for this, was being threatened by a growing emphasis on research within the University and the possibility that she might not be able to take part in that.

> There is a tendency, certainly in our School, you know, if you're not doing research, you are looked on as if you are something on the bottom of something else's shoe, but actually there are some people doing research who really shouldn't teach, thank you very much, you know. So, if you are good at research, great, if you are good at developing, great, if you are good at this, great, but this idea that everyone has got to be everything is kind of suppressing and demoralising. (Lines 580-585: Helen)

Helen's expression that 'everyone has got to be everything' underlies her misconception about the true nature of the academic role. A combination of teaching, research and community engagement is the role, but it is not recognisable as such in this University. Paul's comment illustrates this lack of understanding most clearly when he argues the case for more administrative support for academic staff by stressing that it would give them more time for teaching:

> ...that sort of thing [administration support], it makes life easier for lecturers, most lecturers are not particularly good at admin, anything than makes their lives simpler on the admin side means that they can spend more time on teaching, which is what we are paid for. (Lines 612-615: Paul)

As they do not identify their position with the institutional strategy, they fear, as Gordon suggests, that they are in danger of becoming “anonymous, a face in the crowd” (Gordon 2003:101).

Conclusion

The devolved and incremental approach to adopting e-learning and the lack of overt championing by senior managers at Southern had led to a confusing and unclear picture for those expected to adopt it. Only the most IT confident or those who had help close by in their School were making any progress. The perception was that it was complementary to face to face teaching. Some factors affecting adoption, frequently observed in other studies, emerged from this stage of the research. These included heavy academic workloads, lack of time to learn new pedagogic methods, lack of support to adapt their teaching to e-learning and lack of resources. However, themes that deserved further investigation were also identified. These included the impact e-learning was having on academic identity and relationships between academics and students and the inter-relationship between these two; academic isolation and lack of access to networks and supportive collegial contacts. These findings give weight to Trowler’s (1997) suggestion that there is a need to move beyond the disciplines as having explanatory power in academics’ response to change. They also indicate that further investigation is needed to explore academics’ choices underpinning their teaching methods, in order to understand more fully the factors affecting their adoption of e-learning, and also those who influence them in these choices and the networks that might support diffusion in this case.

Informed by this greater understanding of academics’ perceptions of e-learning, that provides some indication that their reluctance to embrace e-learning might not be as completely irrational as often reported, I move on in the next chapter to explore the views of those who are representative of the early/late majority adopter categories, who together form the largest group of potential adopters of an innovation.

Chapter 6: Adoption of e-learning and its impact on academic identity

Introduction

Using the innovation diffusion model to explore the management of change in a devolved organisation, I have identified that there was a lack of a highly visible champion for e-learning. Senior University executives not only lacked a clear vision for e-learning but also demonstrated an aversion to risk taking that was not compatible with leading organisational innovation in this area. Their risk aversion appeared to be heavily influenced by a tension between their desire to act according the traditional collegial approach to managing universities and a pressure to adhere to the new managerial demands for accountability and demonstrable outcomes evidenced through the Technical Rational (TR) approach. This ambiguity of approach, despite their best efforts to drive policy in a managerialist fashion through, for example, renewed emphasis on the appraisal system, was leading to messages being distorted by the actions of middle managers within the organisation, who were amending policy to suit their own drivers and pressures. I summarise below the realities of this situation for individual academics as revealed through the focus group responses analysed in the previous chapter.

This tension between TR-driven managerialism and traditional collegial aspiration was influencing academics' position and their perception of their academic identity, which in turn, revealed factors that were influencing their adoption of e-learning. They were unaware of any specific policy or strategic approach towards e-learning being championed by senior managers. Their perceptions of e-learning were leading them to see it as posing a threat to their identity as academics and repositioning them in relation to their students. Their working lives appeared to be characterised more by a sense of isolation rather than membership of a collegial academic community.

In the absence of a strong managerial drive to adopt e-learning, the success of an incremental approach to change management and e-learning adoption and diffusion was likely to be dependent on influence being exerted by those in social networks homophilous with the target audience of potential adopters. Therefore,

using semi-structured interviews with individual academics, I moved on to undertake a more detailed exploration of the factors that influenced academics in their adoption of e-learning. I explored in greater depth the themes that had emerged from the focus group, including perceived threats to academic identity, changing relationships with students and the re-positioning power of technology. I then sought their perceptions about individuals who influenced their views of e-learning. Unlike the respondents in other studies, who were intensive users of e-learning (Dutton et al. 2004), innovators (Eynon 2006) or early adopters (McShane 2003), the respondents for this round of interviews were selected not because they were innovators or early adopters of e-learning, but could be perceived as representative of the mainstream, in effect, the majority of academics in any university who remained to be convinced of the value of adopting e-learning after the minority of innovators and early adopters had made their decision to adopt. They taught a range of disciplines including business studies, marketing, accounting, computing and environmental sciences.

In the analysis that follows I have used their comments about their current academic context, their approach to teaching and their views of their students to explore two main themes; tensions in the nature of their academic work and their changing academic identity. I have reviewed these against etic issues identified from the literature. I then used this analysis to explore from an emic perspective, these academics' perceptions of e-learning and I suggest ways in which it appeared to be having an impact on their academic identity. The final theme explored attempted to identify the opinion leaders who had influenced their thinking about e-learning and considered evidence about these academics' social networks that might be used to encourage diffusion of e-learning.

The nature of academic work – autonomous or managed?

The interviews revealed evidence in support of previous authors' assertions that autonomy is believed to be a defining feature of academic work (Birnbaum 1991; Kezar 2001a) yet they also demonstrated the extent to which this autonomy at Southern is being undermined by an increasingly regulated approach to academics' work in response to external pressures. This position appeared to be consistent with Deem's (2002a) predictions about the increasing regulation of

academic work but my respondents still clung to their belief that they had a considerable degree of freedom. It was the inconsistency of statements expressed by three respondents in particular, John, Hannah and Duncan, that struck me most.

John had worked as a manager in the private sector before undertaking a degree at Southern University in his 40s as part of a life-change decision. On being awarded a First he was offered a job as a lecturer within the same department. He contrasted his academic role favourably with his industry experience, claiming that he had never been in a job before which offered so much freedom to act autonomously. He also accepted that this freedom comes with accountability that places a professional responsibility on the individual to 'go the extra mile'. He suggests at this point that this commitment is derived from a sense of professional responsibility and is freely given:

> …I have never worked anywhere where there has been so much trust given to individuals to just get on and do their job and so much willingness to do stuff outside that which is directly required of people. (John, lines 582-584)

However, at another point in the interview he reported that he is now expected to teach a subject that he was not originally recruited to teach, since he is now expected to teach computing rather than psychology. However, he suggests that this is not uncommon in his experience:

> A lot of people who lecture know quite little about the subject actually. I mean, I am one of those at the moment, with computer networks. I decided, was asked and agreed to teach computer networks and I knew nothing about them at all two years ago but I am teaching second years now, right, and I can get caught very easily. (John, lines 344-348)

The uncertainty that comes through in the utterance above, as he starts by using three verbs to begin the third sentence in this quote, suggests that he wants to believe that he is more in control of this situation than he actually is. His revelation, that he 'can get caught very easily' if asked questions by students on this subject that is outside his primary knowledge base, suggests that he is concerned about appearing to lack knowledge in front of his students. At an institutional level, the proposition that an academic can be asked to teach a

subject that he admits he knows nothing about indicates a lack of status attached to teaching which is likely to discourage academics to think much about how they teach or to consider new approaches to teaching such as e-learning if they are not confident in their knowledge of the content. This is consistent with views expressed by Taylor who suggested that teaching as an academic activity is not valued as much as research because “anyone can do it” (Taylor, P. 1999:127).

Hannah had been teaching for six years, having been invited to apply for an academic post at the University after undertaking a market research project in the same department in which she was now teaching. She appeared to have been highly flattered by the invitation and subsequent appointment, acknowledging the status she perceived to be located in an academic post:

> Well, to be honest, I was quite flattered because I always perceive a lecturer to be, I mean, either I think you are perceived to do well because you've made a lot of money and you're in a commercial environment and it's challenging in that way and you achieve your goals and go higher up in the organisation. Or you're perceived to be credible because you're academic, er, intelligent, and you're perceived to be as such, and I thought, well, I've joined the University at 22 and I'm quite impressed at 23 they've asked me to become a lecturer. And blimey, it's completely not what I expected so, you know, it was really to do with that. (Hannah, lines 73-79)

However, she found the work more challenging than she had anticipated and, in particular, expressed concern about the perceptions that her students might have of her because of her age and her lack of subject knowledge:

> When I started here, funnily enough, I mean, I found it incredibly daunting because my first year full-time lecturing I taught a subject to the third year advertising students, so I was 23 and they were 21 or 22 and, teaching in the final year, with a subject that you know nothing about because the subject was completely undeveloped at the time as well, so there were no books on the subject, there were a few journal articles, and it's only really developed over the last 5 years or so. (Hannah, lines 86-90)

She also felt that the attitude to work was influenced by a sense of personal accountability:

> …I think people have their own sense of pressure that they should keep up to date and they should be contemporary with the way that they teach. (Hannah, lines 553-555)

Her focus on keeping ‘up to date’ and appearing to be ‘contemporary’ did not include the use of technology to enhance learning, it was much more to do with her professional area of expertise, marketing. as she indicates later.

The managerial pressure affecting the autonomy of academics in her School was illustrated by her reference to an initiative to increase the number of First Class honours degrees achieved by students:

> …there’s a lot of pressure to raise the number of first class degrees and, in fact, to the point that it's become highly formalised now, so we have a special interest group that's looking at how to increase the number of first class classifications that come out, because you always have a problem with management-based subjects... (Hannah, lines 344-347)

Undergraduate students in her School entered with high A level points but the External Examiners had commented on the low number of First Class degrees awarded, so a formalised, management-driven process had been initiated to remedy this, rather than relying on the professional responsibility of academics to address it. She described in some detail how assessment criteria had been ‘overhauled’ in the department, and, in response to this call for more firsts, she had changed the assessment criteria for her own assignments and the format of her examination. But this was done to a ‘formula’ rather than arising from her own sense of professional accountability:

> So you start to learn a formula again and what can create a First, so you probably do spend more time working with the first class potential students to sort of really push it through, and to work to a formula with them, whereas it would probably have been slightly more ad hoc before. (Hannah, lines 366-369)

By encouraging her to spend more time with high flyers, those with the potential to gain a First Class degree, this managerial intervention appeared to have the unintended consequence of reducing the time she spent with more vulnerable students.

Duncan, who had taught at Southern for over 30 years and at no other university, recalls that when he was considering a career, he found the job appealing initially because it offered a status and conditions not found in other occupations:

> I just couldn't imagine having a job without long holidays and in those days people used to work on Saturday mornings and the thought of having a job where you didn't have to work Saturday mornings was very appealing. (Duncan, lines 50-53)

These conditions seem stereotypical of the somewhat leisurely and privileged working life of an academic and reflect a nostalgic view of a lost golden age of academe (Taylor 2008). Duncan's comments are comparable with the responses given to Martin by her respondents who also recalled the prestigious nature of the academic profession in the 1950s and 60s (Martin 1999). However, Duncan's more recent experience again illustrated the extent to which managerial control was being exercised in the University. He was actually involved in developing e-learning, but this was not by choice, or a personal decision to adopt in order to enhance his teaching, he was being forced to take part in this activity:

> Well, the reason why I got involved with this online teaching is not because I volunteered and was right at the front of the queue but I was commandeered and I am absolutely horrified at having all this change at my time in my career. (Duncan, lines 304-306)

His use of the word 'commandeered' suggests he was feeling that the most extreme pressure was being placed upon him and his phrase "all this change" suggests that the move to e-learning was only one of many factors having an impact on his working conditions. He later expresses a degree of anger as he compares academic work now to working in a "sweat shop".

The experiences of these three academics are consistent with the claim that there has been a shift from individual autonomy to institutional control that is indicative of the ways in which universities are responding to external pressures (Coaldrake and Stedman 1999). These three examples of being told what to

teach and how to teach and assess students are indicative of the extent to which autonomy had actually shifted away from the individual academic at this University, and yet these individuals still believed they retained some degree of autonomy. This contradiction supports the view of Wells (2005) that "contradictory subjectivities" can be found in the experiences of academics who are faced with great changes in their work environment. It is also be indicative of the increasingly dysfunctional state of the organisation, as Taylor suggests, with "policies and procedures becoming inconsistent with actual job demands" (Taylor, P. 1999:49)

These interviews provided evidence that academics at Southern were experiencing a change in the nature of academic work through which their academic autonomy was being challenged by managerial pressures. This was consistent with findings of other authors and provided the starting point for further analysis of the impact of this change on their perceptions of their academic identity.

Changing academic identity

Academic identities grow out of achievements built up over a period of time and successful identity work reduces anxiety (Taylor, P. 1999). The interviews provided significant evidence that these academics were facing issues in their teaching, arising from the tensions observed above, that served to undermine their sense of achievement and were having a negative impact on their academic identity. This was illustrated particularly in their comments about how they were coping with rising student numbers and struggling to maintain the quality of their traditional approaches to teaching.

They had a demonstrable sense of pride in their achievements when talking about using their most favoured teaching methods since their coping strategies when using these methods had been built up over a period of time. However, their ability to maintain these approaches was now being challenged by the increasing number of students on programmes and their raised expectations

arising from payment of fees. They each favoured an approach to teaching that they had developed over time and that supported a feeling of being in control and they were frustrated that factors beyond their control were beginning to make their favoured approach untenable.

Hannah and Duncan preferred the opportunity provided by lectures to prepare and deliver presentations that enabled them to demonstrate their expertise to students. This made them feel secure because the very formality of the situation was intimidating for students, making it less of a risk that anything beyond their control would happen:

> I quite enjoy really big lecturers, which probably sounds bizarre for most people, because they probably don't. I quite like having a big audience of 150 people, 200 people. I guess in some ways it's easier because it's very formal. (Hannah, lines 135-137)
> *and*
> …I find it sort of easier in terms of the structure and the format than a smaller group and there's less risk that anything will go wrong… (Hannah, lines 138-247)

> I always make a point in the lectures of not using any notes, just OHPs and I think the students think I must be omniscient because they often say 'how do you remember all that stuff?' but I don't think they realise all the work that goes into it beforehand. But you know, when you are dealing with 240 people it has got to be absolutely spot on, hasn't it? Otherwise it can degenerate into chaos… (Duncan, lines 243-247)

Duncan also enjoys being able to connect with students on a personal level and to teach more effectively in the face to face situation, although, again, the increasing large sizes of groups was making this more difficult.

> …I mean, one of the great disadvantages I think at the moment, is it has become a bit of an academic sweatshop, because in my main lecture there is 240 students, so there is not much opportunity to, you know, have a discourse with them... (Duncan, lines 150-152)

His use of the phrase 'academic sweatshop', both here and earlier in the interview, seems to emphasise the unpleasantness of his working conditions, his sense of isolation and fear. In his seminars also the student numbers had

risen, making his preferred discursive style difficult to achieve:

> I mean, in the old days we used to have four or five in a seminar group maybe, you know, back in 1976. When we first came here I had classes with four or five in, but now there is about 20 and I think that stifles discussion in a way really. (Duncan, lines 164-166)

For Mary, her preferred method of teaching accounting was to work with small groups of students to help them develop the concepts and to be able to tailor her help to those who most needed it:

> Again, with numerical things, people have tried them before they come [to the seminar] and often they have got different parts wrong, so if you go through the whole thing some of them might be sitting there and they have done 95% of it right. Whereas I prefer the approach where you can say to them 'Right, get on with the next question and I'll wander round and see what you've done wrong on this one and just set you right on that', so people are getting individual attention. (Mary, lines 81-86)

However, since her seminar group size had risen from 15 to 40 students in each group, she was finding it impossible to maintain this individualised approach and found that she was reverting to a lecture-style delivery in her seminars in order to cope with the larger numbers. She thought that the students were losing out on opportunities for interpretation and discussion:

> …so what we are looking at is a seminar with about forty people in it, which is not really a seminar. So we are moving towards a big lecture and, well, you could say, try not to be a small lecture, but yes, which I think restricts the way you can deal with it. (Mary, lines 70-73)

For Joan, as an environmental sciences lecturer, fieldwork was an important approach that enabled her students to understand and apply the theoretical concepts of the subject:

> What I try to do is to get them out there [in the field], collect data, see it in the context of the natural environment, then come back and go through stats on it, which makes a lot more sense because they can remember where it was they were working on and from there, look at what are the implications for the conservation of these organisms and relate it to the habitat they saw, to organisms they were identifying, to maths, and then to the wider picture. And I just think that to be able to

> see the whole picture so they can follow things through. (Joan, lines 128-134)

She acknowledged that the rising cost of this and the logistics of safely providing this experience for larger numbers of students were leading many universities to withdraw the experience from the curriculum, and she felt fortunate that, so far, her department was resisting this trend, nevertheless she still felt a tension between achieving the best for student learning and resources whenever she considered new approaches in her teaching:

> …the first thing that always comes to my mind is what are the students going to get out of this, then second, how much is it going to cost. Logistical nightmares! (Joan, lines 166-168)

There was little evidence of any theoretical or principled base from which they were drawing their ideas about teaching and learning, in common with Taylor, P. et al.'s (1996) findings. They were teaching very much in the same way that they had been taught at university, or from observing colleagues when they first started (Duncan, Joan). The structure of the University was cited by Mary as a major influence on teaching approaches, meaning the timetabling systems in use in different Schools. Hannah worked to a formula. John admitted to developing his most effective practice by accident but engaged in post-hoc rationalisation when he heard about a similar approach from a colleague:

> There was no planned way of progressing the lecture from beginning to end but it was just as if me and a hundred students had decided that we all wanted to go to London and we just did it. And at the end of the period, you know, of the lecture, they seemed to have acquired a lot of understanding. I'd thoroughly enjoyed myself and the attendance went up, it was just brilliant. So I apply that sort of method now to almost all my teaching. (John, lines 87-91)

These comments provide evidence that resonates with the findings of previous research (Knight and Trowler 2001; Martin 1999; Taylor, P. et al. 1996; Taylor, P. 1999) that suggest that academic identity is developed in the classroom through interaction with students. However, while this had some positive features, it was also inhibiting the adoption of innovation, reflecting Dutton's assertion that the

“expectations and values of students can be either an impetus or a constraint on innovation” (Dutton et al 2004:146), as I will reveal further on.

Negative experiences with innovation in the classroom

This inability to articulate a principled approach to teaching arising from any source outside their own concrete experiences also appeared to result in them being reluctant to introduce changes to teaching approaches more generally because they remembered students’ negative reactions to their attempts to make changes in the past. Their previous experiences suggested to them that it was safer not to innovate. They cited their own experiences, or that of their colleagues, where students’ negative reactions to innovation had made them revert to previous practice that did not challenge students. Duncan recalled an occasion when he tried to introduce student-led presentations into his seminars:

> I think that on the whole what's influenced my teaching methods is student demand. Whenever I try to change the style of seminars by getting them to do presentations, I have always met with a great resistance to it. (Duncan, lines 451-453)

He rationalised his return to his usual style by referring to his students’ preference for his traditional approach:

> But that's not everybody's idea about what a seminar should be is it? I mean. Now, for example, when I tried to sort of organise presentations, invariably students say ‘oh no we're doing lots of presentations in other subject areas, can't you just talk to us about what we've been doing in the lecture?’ (Duncan, lines 133-136)

He recognises that his approach may seem old fashioned but suggests not only is it what students prefer, but also that it suits his subject, business studies, because it is one that they may not have studied before coming to university.

Mary recounts the experience of her colleague who used a specially created website to give students access to his teaching resources in place of the traditional printed workbook but experienced a negative student reaction:

> …he put all of his materials onto the Internet but they [students] don't like having the whole lot on the Internet, what they like is having a workbook and the Internet, so they want the best of both worlds really, in fact they said they would like hard copy and online. (Mary, lines 239-241)

Hannah experienced a pressure to entertain students, arising from the examples of colleagues:

> I think there's a subtle pressure or a sort of a peer pressure in some ways to provide the students with a unique experience and something that's unfortunately to some extent, now entertaining as well as educational as well as, you know, challenging, fun and all of those kinds of things and I think that's quite a pressure sometimes. (Hannah, lines 578-581)

Yet when she tried to exercise academic authority by introducing a new approach in her seminars, she found students unresponsive and unable to grasp the concept she was trying to develop through this method:

> And to be honest, I found it quite interesting but I think the students just didn't really, really get into it or really understand the concept, because it was too far removed from what they were able to think about in the context of the subject. (Hannah, 208-210)

This experience must have been uncomfortable for an individual who expressed great concern about developing and retaining 'respect' from students:

> Well I think you have to be quite assertive with students because I think, you know, there's a risk that they can undermine you quite quickly if you don't seem as if you're in control, that you don't gain their attention immediately, if you don't have their respect. (Hannah, lines 151-153)

She reverted to her successful formula of exercising control and thereby gaining student favour by bringing in exciting guest speakers that had the 'wow' factor as far as her students were concerned who could provide the 'entertainment'. She rationalised this by referring to the value to her students of being able to put this activity of working with these 'marketing stars' on their CVs.

These comments support Rogers' view that a negative experience of innovation can result in the rejection of innovation in the future (Rogers 2003)

Joan, perhaps with the confidence arising from her identity as a research-oriented academic, was prepared to challenge the students to learn in ways that succeeded against their initial resistance. She believed it was important that students learnt to give good presentations and justified this approach as a way of checking students' understanding and giving feedback to help their learning, but she acknowledged it was hard to get students to engage with what they found challenging:

> …I find those are very hard, because it puts the students in the driving seat, makes them do something they don't what to do, but until you do that you don't really know how much of a grasp of the subject you have got… (Joan, lines 139-141)

"The unique informal relationship" between academic and students (McWilliam and Taylor 2002, cited Wells 2005: 4) was no longer sustainable. This was particularly illustrated by John who expressed concern about the changing relationship between himself and his students that had turned him from academic to authority figure:

> Given the fact that I absolutely adore this job, the only one aspect of it really that I don't like is the way that that we have had to become much more policeman-like in our approach to the students. Taking attendance, getting people in, why can't you do this, why haven't you done that? (John, 529-532)

Enrolling students in academic identity formation

Clearly for these academics, their academic identity has been created in the classroom through engagement with their students. From a management perspective it is important that education processes stay attuned to student needs, since successful universities enrol students in the management of the university (Shattock 2003). However, these interviews suggested that enrolling students in identity formation can eventually undermine academics' confidence in the professionalism of their teaching. The pressure arising from the need to accommodate the 'student as customer' approach is as evident as it was with the group in the previous chapter, but this is a negative influence

rather than one that has a positive influence on adopting innovation in teaching.

These interviews also provided evidence that undermine the perceptions of the academic managers, identified in chapter 4, who had suggested that academics are adopting an altruistic attitude to teaching "we want to do our best for our students" that led to them to doing more than what is required in terms of being available to support students. This attitude is actually arising from a more fundamental lack of confidence in their ability to innovate. They are adopting a defensive reaction to students' negative reactions to anything new or challenging. This actual process of developing academic identity supports a risk aversion that causes them to be reluctant to adopt an innovation such as e-learning. Furthermore, even when they have developed greater self confidence in using e-learning, they may still find it difficult to challenge students to learn in new ways if other academic confidences, such as a basic level of research credibility, are not present, as I discuss next.

Identity established through research

An academic identity forged through research might have counteracted this classroom identity, but it did not widely exist, as noted by the Vice-Chancellor. The pressure to undertake research and enterprise activity, or anything other than just teach, as the Vice-Chancellor had insisted, was felt by these respondents. Joan, who had joined Southern three year earlier, having been an academic at a more research-oriented university, appeared to embrace the pressure to undertake research more willingly than the others. She felt it was restricting the time she could give to developing ideas about new approaches to teaching, nevertheless, being research active was a fundamental part of her academic identity and was essential for informing her teaching and maintaining her credibility with her students:

> …because for me the reason I am research active, is that I think it really influences my expertise as a lecturer. I think it means I can put a lot more into my teaching because I can tell the students what is actually going on from a practitioner. I do feel very strongly that without either the input from the research or the input from the practitioner, say in consultancy on the environment, then its not great for our students. (Joan, lines 219-224)

She was very much aware of the need to maintain the currency of her research activity:

> …I know that if I want to retain a research profile, I am aware of what my peers are doing, you can't dabble in research, you are either there or not… (Joan, lines 214-216)

Hannah also acknowledged the pressure of research, but her rationale for this activity was oriented more towards an instrumental compliance with the policy to produce publications rather than using it to inform her teaching. She appeared to have used this output as a bargaining point with her line manager to release her from any obligation to engage in further research activity:

> The other pressure is to feed research back into your teaching is a big issue. I've sat down and talked to [her line manager] about this and said that I am not going to be actively involved in research, I have done my research degree, I have had a number of publications from it. (Hannah, lines 582-584)

This seems consistent with the inability of academic managers to make full use of appraisals as expected by the University executive as a means of encouraging change.

Hannah did make extensive use of her external professional contacts to enhance her students' learning experience and demonstrate her currency in her professional domain. Her approach to engaging their interest in her subject was to bring practitioners in to her lectures to work with students on projects:

> But for my own units now I'm very conscious that I want to have quite a pragmatic approach so I get lots of practitioners in. So I try and get a wide spectrum of speakers in to do very hands-on work with the students... (Hannah, lines 381-383)

Her description of her approach as 'pragmatic' and the importance she attaches to importing expertise from outside the University in support of her teaching

indicates that she was still identifying herself with her professional area of expertise very strongly.

More overt managerial demands and pressure to accommodate increased student numbers were factors that were damaging their perceptions of their academic identity. However, they could only articulate this in terms of students' negative reactions, which made them appear recalcitrant, or just 'playing safe' (Knight and Trowler 2001; Taylor, P. et al. 1996; Taylor, P. 1999). They are enrolling the students as allies but this is not a long term investment as the student body changes each year, bringing a different set of backgrounds and expectations. It is a self defeating strategy, as we can see in their expressions further on in last section of this chapter, leading to negative self image because they are not innovative. Once again, it supports Trowler's (1997) assertion about the importance of looking outside the influence of the discipline to more fully understand academic behaviour, particularly in post '92 universities. So, if increased student numbers and managerial pressures were having an effect to such an extent, then the emergence of the additional pressure of e-learning was likely to trigger yet more negative reactions.

Impact on academic work and identity arising from moving to e-learning

When e-learning was brought more prominently onto their agendas, their confidence in their academic professionalism, already low as a result of management pressures and a student-focused emphasis, began to break down even further. Previous research has identified that the impact of e-learning on the role of the academic requires "faculty members to think about themselves very differently as instructors, recognising the changes in the educational paradigm, engage in new kinds of activities, and *reconsider the meaning of being an expert*" (author emphasis) (Conceicao 2006: 44). However, there was little to suggest that these academics had begun to view themselves in this way to take forward their use of e-learning.

E-learning was used mainly to supplement their classroom-based teaching by providing students with access to handouts and exercises on the department VLEs or their self-created websites:

> …all of my exercises now have got typed answers so the answers go on the intranet. So what happens is if the students don't pick it up in the seminar, they can pick up the answers from the intranet and go through them in their own time. (Mary, lines 111-113)

> …well, I have my own website here, a purely teaching website and all my lectures. It is really so that I don't have to hand out notes, because for a lot of students it's a waste of paper, they get notes as and when they wish and it's good for revision. (John, lines 258-261)

E-learning has the power to re-configure access to academic expertise (Dutton et al 2004), potentially taking control over that access away from the academic. This can be used positively by the academic as a powerful aid to developing students' independent learning, or it may be perceived in a negative way, since by making their knowledge available they may be in danger of giving away their expertise and could be replaced. These academics' current use of e-learning was used in a neutral way in support of their classroom presence.

Even taking the first steps towards making greater use of technology in the classroom was leading to a feeling of loss of control over their teacher presence. Mary explained how she had felt compelled to put aside her traditional acetate ohp slides and start using PowerPoint when she took over a series of lectures from a colleague who had already started using it, but she regretted it immediately:

> I've always done mine on overheads but when I took over the lectures I thought I'd better join the crowd and do PowerPoint, so I did, for about two weeks. And I gave up. I'm not sure the students liked it but I felt out of control. (Mary, lines 152-154)

She felt she had lost control both of her ability to have an appropriate discourse with her students and over her physical environment in the lecture theatre. She found she was not able to demonstrate the mental methods of calculation using her usual approach of writing each step up on her acetate in front of the

students; her academic presence was reduced to a mechanical process of pressing a button to change the slides:

> I felt that, you know, when you have acetate you can pull your sheet down and cover things. I can write on it and especially with accounting, where often I am filling in numbers and doing an example as I go. You can't do that on PowerPoint. What I did on PowerPoint, when I tried to do it, is I set the PowerPoint up so that the first overhead had just the first bit on and the second overhead repeated that but added a few more numbers, and the third overhead added a few more numbers. But all I was doing was saying to them and pressing the button and saying now this bit, this bit and this bit. I much prefer to be there with my exercise and my piece of paper, my acetate and write on it… (Mary, lines 158-165)

She ends by saying she prefers to 'be there', suggesting that by using the technology, although still physically present, she had actually given away her academic presence in the lecture theatre to the technology. She also found that her physical movement was constrained by having to stay close to the PC to operate it, as it was placed on one side of the lecture theatre, rather than being able to move around the ohp which was placed at the front and in the centre of the lecture theatre.

They were aware of other university lecturers using more complex features of e-learning such as computer conferencing but they could not imagine themselves using this because of their perception of the need to maintain close control over students' while they were engaged in this type of communication:

> …if you were having a [e-learning] conference between students and it is an academic conference, you need to keep an eye on what's going on and presumably, if the conference starts going off at a tangent or comes up with things that are inaccurate, presumably you then have to got to go in and correct it, so I think you have to keep a strict eye on it. (Mary, lines 280-284)

> …how you would possibly monitor 150 people at different stages, you'd have to set up different forums to have seminar discussions, which in itself could become incredibly time-consuming. (Hannah, lines 457-459)

The desire to keep a strict eye on students' discussion was, for Mary, similar to her classroom-based behaviour of moving around her students in her seminars,

checking on their progress with the problems she had set them. Hannah's control over her student audience in the lecture theatre, which was such an important element of her professional presence, might be lost in the computer conferencing environment.

These comments support the view of one of Taylor, P. et al.'s (1996) respondents that for academics whose professional personality has been developed through their physical presence in the classroom, any extended use of e-learning would put them in danger of losing that identity. It also provides evidence that academics have to become accustomed to '(dis)embodiment' as an important milestone in learning more about student learning in e-learning settings (Taylor, P. et al. 1996:131). There was also evidence of their reluctance to surrender control of learning to the students themselves, which computer conferencing can facilitate, as suggested by McGlone, (one of Taylor, P. et al.'s respondent (Case 5:167), in case the students forgot who the lecturer was when they were online. This fear was also expressed by Wells' respondent Angelina (Wells 2005:14). Yet again their 'high touch' teaching approach appeared to be under threat from 'high tech'.

While academics were reluctant to voluntarily adopt e-learning because of a perceived threat to their academic identity, mandating its use absolutely horrified them. Duncan was taking part in a programme to develop a distance learning programme through e-learning which was clearly disrupting his former successful practice and causing him great concern, as his description of the progress as being totally leaderless and unplanned, demonstrates:

> I think it is a question of the blind leading the blind; nobody seems to know what to do. We are all sort of groping about with experimentation, dealing with all sorts of imponderables, worried to death about when it all happens and whether it will work. (Duncan, lines 498-500)

This inability to act competently as a teacher as he was learning to adopt e-learning was really upsetting him, a factor of adoption that needs to be addressed, as recognised by Taylor (Taylor, P. et al. 1996; Taylor, P. 1997). Taylor's research identified the importance of a 'refuge', where academics had

an opportunity to rehearse new practice associated with e-learning before they used it with their students. The lack of a refuge in this case, coupled with their memories of students' negative reactions to innovations they had tried in the past, makes these academics' reluctance to embrace e-learning seem not only inevitable, but completely rational, rather than irrational, (Arnaboldi and Azzone 2005) or conservative (Bottomley et al 1999) as they have so often appeared to researchers in the past (Bennett and Bennett 2003). The feelings of anger and resentment expressed by Duncan are consistent with the tone of those reported by Wells' (Wells 2005), whose respondents were also mandated to use e-learning by university management.

However, if a planned approach were to be taken to introducing e-learning in response to meeting particular learning and teaching problems, and sufficient time was provided for them to learn how to use it effectively, there was evidence to suggest that academics might be willing to adopt it:

> But for me to do it, I wouldn't do it randomly. If we had some seminars or workshops on how it worked and the kind of materials we could use in an e-learning environment, because I would imagine that certain things would work better for that particular forum and some things aren't going to work quite so well, so you get an understanding of the range of different things that you could actually do with that. (Hannah, lines 507-511)

> I think the danger of the intranet is that if you are going to have it more as a learning resource it's got to be a little bit more interactive, it can't be just your notes, you need the links to other references and you need the... I think it needs quite a bit of setting up. (Mary, lines 312-315)

They recognised that there might be some benefits but they were not sure how or where to find the 'refuge' that would provide the opportunity to experiment without damage either to their students' experience or their own egos (Taylor 1997).

However, in the absence of empirical evidence that e-learning enhances student learning, the academics pointed to various ways in which it might actually diminish their students' learning, either because they, the academic, would not be able to build up an effective relationship with students online, or that students

would not have the opportunity to develop important skills as they did in the classroom environment. Having already experienced the difficulty of forming close relationships with students as a result of the larger class sizes, achieving this online appeared to be even more difficult:

> …I personally think that when you are in a classroom situation you can communicate with your students in your own particular style and make a subject interesting, as I said earlier on for example, by putting the topics into perspective and looking at it from a multi disciplinary approach. But it is more difficult to do that online when the person at the other end doesn't actually know you, and you don't form a relationship do you? (Duncan, lines 356-360)

Developing students' competence in oral communication skills through discussion and giving presentations, in support of their employability, was an important element of their teaching, and like their colleagues in the focus group, they did not believe that online conferencing could develop this skill effectively:

> And you know, it's all very well to sit at home and do it on virtual conferencing but I think I'd rather they were there [in the seminar], because when they get to the big wide world, they have got to speak to somebody, you know, with work situations, they have got to be able to go in there and put their point across and I think you are losing that to some extent. (Mary, lines 293-297)

E-learning is seen as limiting the pedagogy available to them and disrupting their position as academics, they are clearly in danger of losing their "teacher presence" (Wells, 2005:17).

As I developed this analysis of their academic identity, what surprised me most was the extent of the negative self-images these academics possessed that emerged. I had initially taken these comments to be related to their reaction to my position as insider researcher, but I now believe they are indicative of an acute reaction to their self-reflection occurring during the interviews that they themselves, rather than the university system, must somehow be to blame for their lack of innovation:

> Yes, I mean, I'm probably bad, in the sense that I don't innovate. (Hannah, line 170)

> It may just be because I have just done it that way, and that's naughty, because you should change but… (Mary, lines 193-194)
>
> …that shows what a stick in the mud I am, doesn't it? (Duncan, lines 45-46)

By referring to themselves as 'bad', 'naughty' and a 'stick in the mud', they are in the process of re-positioning themselves as laggards, which is likely to be confirmed if the University does not realise how to deal with this group of adopters. This position is similar to Gilbert's experience, where respondents who strongly supported e-learning innovation tended to categorise non-adopters as 'backwoodsmen' who just ignored innovation hoping it would go away, whereas these individuals were often actually in favour of innovation but felt hindered by lack of resources (Gilbert 2001). In this case however, they were in the process of re-positioning themselves into the potentially unreachable group of laggard adopters. I reflect more on these issues in the conclusion to this chapter.

Reflections on academic identity

With academic identity, or 'professional personality' (Taylor, P et al. 1996) and 'teacher presence' (Wells 2005) so firmly established through the environment of the face to face classroom over many years, and successfully, according to their student feedback, the adoption of e-learning that required the development of a new disembodied identity is bound to be considered cautiously by mainstream adopter academics. With no sense of achievement yet of successful use of e-learning to begin to build up an identity as an e-learning academic, like Wells' respondent Jonathon, they appeared to be filtering out threats to their identity using the 'protective cocoon' of their positive student experiences (Giddens 1991 cited Wells 2005:16). They fall back upon their strongly established links with their students as justification for their reluctance to adopt because students and their learning are important and student learning seems to take place effectively in the classroom environment. It is extremely difficult to mandate the use of e-learning in this context, and results in anger and a sense of displacement. Worst of all, it threatens to re-position them from a reachable group of mainstream majority to the unreachable laggards. This makes the use of opinion leaders and social networks to encourage diffusion a critical factor in encouraging adoption of e-learning.

The next section discusses who these academics did observe using e-learning and who is influencing them in its use and in the light of this, offers an interpretation of the applicability of the power of diffusion through social networks in this case.

Opinion leaders and networks

The people influencing these academics' perceptions of e-learning are their colleagues in their academic Schools. Those physically closest to the individual, for example, those with whom they share an office, exercise the greatest influence. Duncan had previously described himself as always having 'an aversion' to computers, but sharing an office with a colleague who was not only younger and more IT literate, but who had also been exposed to different approaches to teaching by undertaking the PG Certificate for new lecturers, and who did use e- learning, began to influence his views about e-learning:

> Well he's very good at putting stuff online for students and using [in-house VLE] and everything and I think when somebody comes along like him and you share the same room, you begin to see some of the advantages of doing this [e-learning], so I suppose that's an immediate colleague. (Duncan, lines 279-281)

Hannah would go to a colleague in her School who was recognised as an innovator in e-learning if she wanted help with e-learning:

> I'd probably go to (colleague's name) so I'd feel confident that he'd probably know what he was doing. (Hannah, lines 565-566)

Yet despite having access to someone experienced in using e-learning, she seems reluctant to follow his example, because she believes that e-learning is more relevant to him since he teaches about it as a subject and it also is more feasible for him to do because the student numbers on his masters programme are far smaller than the numbers on her undergraduate programme:

> …he teaches on an interactive unit and interactivity is his specialism, so it kind of makes sense; it fits very well with the subject matter he's teaching. (Hannah, lines 453-456)

She also suggests that innovative colleagues can be a nuisance because they influence students' perception about approaches to learning and teaching and this encourages them to be more demanding of other lecturers:

> …because you get people being very creative then obviously the students expect that to become the norm so it redefines the way they that think about traditional lectures and seminars because somebody else has done something fairly radical… (Hannah, lines 232-234)

Mary found one of the most useful ways of finding out about new approaches was when she and a colleague were funded to visit colleagues teaching the same subject in other universities:

> …I think one of the things that has influenced me the most is that I did quite a bit of work with [colleague's name] about a couple of years ago, interviewing and we did about twenty interviews with people, course leaders of accounting courses and talked to them and that was very interesting… (Mary, lines 418-421)

Informal discussion between colleagues about teaching approaches does feature as a method for diffusing ideas, but its usefulness is limited by the narrow range of individuals that constitute her peer group of academics, those who were appointed at the same time as herself:

> There have been lots of chats with other lecturers, yes we do swap ideas, but it is very informal, and actually, inevitably, it is between lecturers who are my sort of peer group, people who came more or less at the same time. (Joan, 230-232)

Imitation is also a powerful way of learning something new. They imitated academics by whom they were taught as students or colleagues they observed through team-teaching:

> Some of it is from my recollections of my own days as a student, other colleagues, my influence about PowerPoint is certainly seeing presentations at conferences… (Joan, lines 184-185)

> I think that perhaps my methods evolved from the fact that in the early days it used to be team taught, where there were several people that gave lectures and we all used to do lectures and seminars on the same basis and in a sense that helped to set up a sort of method that was used by everybody. But that's gone now, its a one-man band again now and it is just left entirely up to me. (Duncan, lines 265-269)

In his last sentence, Duncan hints at the isolation that others express more openly:

> I think we don't hear an awful lot about what other people are doing. We are just about to come up to peer review, the peer assessment, and that gives you a chance to see what other people are doing. I think we have had staff development days when again that's happened, which has been quite useful. (Mary, lines 246-248)

> Very, very informally. I mean, we're talking about a discussion in the corridor, a discussion at your desk. No, I think it's a shame in some ways, we are quite isolated… (Hannah, lines 405-406)

> No. A bit of a loner, I am afraid. (John, line 378)

In addition to academic colleagues acting as role models and sources of information, Learning Technologists in their Schools played a role in setting up easy to use systems for these academics to upload their teaching resources onto their VLEs:

> Plus the fact that the facilities are becoming so much better. We have someone in the School now, [colleague's name], who is helping with online development… (Duncan, lines 285-286)

> But the whole School is now making increasing use of the Internet and I think since [colleague's name] set up the finance and law work sites they are quite easy to use, you just go into them and drop stuff in. (Mary, lines 246-248)

These perceptions support the key principal underpinning the diffusion theory that innovation is a socially constructed process (Rogers 2003). Their responses also reveal how difficult it would be to overcome the isolation experienced by

these academics so that the social networks and opinion leaders could be used effectively to increase the diffusion of e-learning in this case.

But even if they observe others using e-learning effectively, they still require greater recognition from their manager of the effort it will take them to achieve the same level of engagement. It needs a process to help them to adjust to the concept and get beyond the drag and drop mentality, they need someone to show them how to do it:

> …I wouldn't do it [e-learning] randomly. If we had some seminars or workshops on how it worked and the kind of materials we could use in an e-learning environment, because I would imagine that certain things would work better for that particular forum and some things aren't going to work quite so well, so you get an understanding of the range of different things that you could actually do with that. (Hannah, lines 507-511)

They recognised that there was more to e-learning than just copying their lecture notes on to the VLE, but it needed more development time allocated to it:

> Because I think if you are going to put your whole unit onto the Internet for this type of learning you are going to need, I don't know, probably a couple of months to do it and nobody has said 'right you can have that amount of time'. (Mary, lines 339-341)

They showed awareness of a policy move towards greater use of e-learning, but only experienced the lack of follow-through and support from management:

> There was something last term, a unit people were doing, you may be aware of it, on distance learning, which some people did, I didn't but I don't think the School has given us the time, um, or the resources. (Mary, lines 337-339)

They also perceived that innovation was restricted by the structure of the University's timetabled lecture and seminar sessions; there was no perception that they could change what they did in each of those time slots:

> I think a lot of it is dependent upon the structure of the University, you know, the fact that we have lectures and seminar slots. (Mary, lines 61-62)

Insider research

Far from acting irrationally (Arnaboldi and Azzone 2005), demonstrating an exaggerated negative reaction to e-learning, or attempting to marginalise it (Thompson and Holt 1997) these academics are acting consistently in accordance with an academic identity derived from their successful relationship with their students. Research written from a managerial perspective suggests that academics are powerless pawns in the face of change, but these interviews suggest that academics are not powerless to influence the path of change. While maybe not fully understanding management requirements, they are building their power base and their identity with reference to their students rather than their colleagues and their discipline (Trowler 1998). By making themselves indispensable to students, they are not passively resisting change; they appear to be actively arguing that their relationship with the students is their rationale for resisting e-learning and other managerial impositions. They are closer to their students than their colleagues at the moment, but how prepared are they for the new generation of students who have a far greater awareness of the use of technologies and the ways in which they are changing access to people and information?

I hope that the reader will be assured of the validity of these assertions through my arguments structured around the responses above. Despite my initial intention not to problematise academics' reactions to adopting e-learning in a negative manner, as past research into the barriers to adoption had done, I found myself wondering if I had gone too far in the other direction and let sympathy dominate my reasoning, resulting in too negative a portrayal of the situation rather than their attitudes. I had to consider the possibility that I was condoning their behaviour to atone for the negative self image caused by the innovation I was promoting on behalf of university management, or the change agency. This was linked to my reflections on my insider status. Despite my attempts to minimise the impact of my insider status in these interviews by adopting a formal approach it still had a discernable affect on their responses. They admit to being 'bad' and 'naughty' because they are not adopting e-learning. Initially I thought this was because I was interviewing them and, since they perceived me to be an

expert on learning and teaching, they might be adopting self deprecation as a protective device, inviting me to respond reassuringly 'no of course you're not'. As I puzzled over this while writing up, I discovered an article that shed some light on the situation. The emotion they were expressing was shame at not being innovative and Owens (2006) argues that interviewers need to be more aware of the possibility for participant shame to surface during any qualitative interview, not just in those about sensitive topics such as divorce and abuse, as in her research. For my respondents, the changing pattern of academic work was undermining their sense of achievement which, in turn, was eroding their sense of academic identity. By making these observations about themselves to me they were seeking permission to explore their story in a more positive light, but my insistence on trying to maintain a formal stance for the interviews precluded these lines of enquiry from developing. If I had had Owens' guidance at the time of the interviews I might have gained an even richer picture, as she says:

> Lived experience is messy. Potentially shame-producing events are experienced throughout many people's lives. Failure to address and accommodate this produces a setting where a narrator is passively silenced through omission. (Owens 2006:1178)

Conclusion

This chapter has identified and analysed issues relating to the impact of e-learning on academic identity, which, in turn have raised questions about the validity of some aspects of the innovation diffusion model in relation to its explanatory power in organisations. The discussion has also raised further points about the impact of being an insider researcher. These findings are summarised below.

The complex, decentralised nature of a university as an organisation and the autonomous nature of academic work appear to have the potential to distort the diffusion process in the case of innovation adoption and diffusion in an organisational context, as normally explained by Rogers' model. The ambiguous position of the potential adopters, the academics, noted in this case, who are caught in the web of managerial demands but not quite seeming to realise the extent of this threat to their academic autonomy, demonstrates the

extent of the challenge to securing further adoption of e-learning without clear signals from an innovation champion. Furthermore, the isolation of these academics from other academic colleagues suggests that the effectiveness of opinion leaders may be diluted and that the role of social networks might be negligible in securing diffusing innovation in such an environment.

More subtle aspects of the insider researcher role emerged as I engaged with the academics through each individual interview. Their apparent willingness to openly discuss what may be perceived as 'laggardly behaviour' in their delay to adopt e-learning, made me even more aware of the necessity for care due towards those who had agreed to put themselves in a potentially, but unseen, vulnerable position for the benefit of my research. This suggests that there is potential for the insider researcher role to conflict with that of the change agent as positioned in the innovation diffusion model, as discussed in the next chapter.

On the other hand, as I pick up the case of implementing e-learning at Southern University in the next chapter, the reader will see that the presence of the opinion leaders actually surfaced in this case in another way that did demonstrate the validity of the diffusion model in a decentralised organisation, despite my observations above, although not in a way that was comfortable for the organisation or the change agent, as I move on to discuss next.

Chapter 7: The role of opinion leaders and change agents in the adoption and diffusion of e-learning

Introduction

In the previous three chapters I have revealed aspects relating to the introduction of e-learning in a devolved university where senior executives were attempting to adopt a TR approach to change management, but the impact of this was reduced by their aversion to risk taking; academic managers' actions were subverting the TR message; and the introduction of e-learning was adding to the confusion that individual academics were experiencing about their roles and identity. This chapter concludes the case study as it discusses the impact of the move from an in-house VLE that had spawned multiple variants in departments to one standard commercial VLE system that was introduced university-wide. The foci for the analysis at this stage of the research, through the lens of the diffusion framework, are the roles of opinion leaders and change agent. Before moving on to this analysis, drawn mostly from the evidence of emails, my notes of meetings and reflections on entries in my research diary, I will briefly update the reader by reflecting on the series of events that culminated in the corporate decision to abandon the in-house VLE and its variants and adopt a commercial system and the turbulent times that ensued.

The innovation diffusion model and the devolved structure of the academic organisation

Innovation diffusion theory suggests that the process of innovation adoption and diffusion in decentralised organisations is likely to be very closely geared to meeting local needs in response to specific problems (Rogers 2003:398). Decisions about adoption are made locally and a high degree of local adaptation takes place. I suggested in Chapter 2 that the devolved nature of a university made it likely that this pattern would be observed. The strategy of encouraging innovative departments to forge ahead with their own e-learning developments can promote early wins but then cause problems later on when they may require a specific type of technological solution that is not applicable to the majority (Holt and Thompson 1995) or the organisational strategy requires a change of direction. I went on to describe in Chapter 4 the position at Southern University, where an incremental approach to developing e-learning using separate applications was

promoted centrally initially, followed by a devolved strategy of developing these components into an in-house VLE tailored to meet each School's perceived needs, the 'boutique approach' to implementation applied to departments rather than individuals (Bates 2000). This had encouraged a diversity of adoption levels across the different academic Schools as those with more active levels of e-learning innovation and strong opinion leaders for e-learning had demanded that priority be given to their needs. I shall now resume the narrative in order to illustrate how Rogers' diffusion model in the organisation can be observed and used to explain what was happening, but also highlight its shortcomings.

Moving on

In both the external and internal environments, initiatives were taking place that were likely to have an impact on Southern's approach to e-learning. Externally, the position of commercial VLEs had begun to stabilise and a small number of international market leaders began to emerge as the most commonly used VLEs in the HE sector (Jenkins et al. 2005). The need to promote a more strategic approach to the development of e-learning had been recognised and two influential documents had been produced by HEFCE (HEFCE 2005b) and by the DfES (DfES 2005). Internally, there was recognition of the need to make Southern's courses more flexible, efficient and attractive in the marketplace and an increasing number of mainstream majority academics were expressing an interest in adopting e-learning. An easy to use, scaleable VLE platform seemed necessary. A curriculum review initiative led by the PVC identified the need to encourage increased cross-school collaboration in curriculum development, to provide equitable student support and to increase opportunities for sharing of resources. Being involved in this latter initiative, I considered the time was right to advocate a move towards adopting a standard commercial VLE in place of continuing the in-house VLE development. This was supported by the PVC who incorporated the proposal that the University consider moving towards a single standard VLE into his final set of recommendations arising from the curriculum review. Although the Head of IT Services, the architect of the in-house VLE, had himself begun to realise that the longer term sustainability of his VLE was in question before this proposal was made, the move was only accepted as a possibility after he had left Southern to take up another job.

The assumption in the PVC's curriculum report was that the standard VLE would be a commercial system. However, the devolved structure of the University had encouraged the pattern of e-learning innovation adoption and diffusion, as I reported in Chapter 4, which was very much in accordance with that suggested by Rogers' model (Rogers 2003). These organisational characteristics made it more likely that further innovation might be difficult to sustain if a change in policy, such as moving away from supporting the in-house system to adopting a commercial package, was proposed and that resistance to such a proposal might be expected.

An E-Learning Steering Group was formed and a consultation process was put in place to evaluate external VLEs alongside the in-house VLE with a view to deciding the most appropriate way forward; should we stay with the in-house development and put resources into developing it further or should we purchase one of the commercial platforms? The task of developing a VLE specification that met all Schools' requirements was allocated to a sub-group of the Steering Group, which the University Librarian was asked to chair, as a neutral observer of VLE developments and an expert in procurement. The events that took place and the high level of emotional response that was displayed during this consultation period demonstrated the extent to which the local adaptation had allowed very strong departmental and personal identities to be formed around e-learning innovation. Any change of strategy was perceived to have the potential to seriously undermine or even destroy not only this level of innovation but also threatened the identities of the opinion leaders who had been at the forefront of the drive towards e-learning in the Schools.

Threats to the opinion leaders

The change threatened in particular the opinion leaders who had championed the development of e-learning in the Schools. This role fell naturally to the senior academics who had responsibility for leading learning and teaching developments in each School. They shared both homophilous and heterophilous characteristics with their target client group, the academics in their own School. They were from

within their Schools, thus sharing homophilous characteristics with their peers through having a related disciplinary background, but they were also heterophilous, in terms of their extended knowledge of e-learning. This should have been an appropriate mix to enable them to effectively champion e-learning innovation, however, as I noted in Chapter 4, they reported that their influence generally was weak because they had no responsibility for line managing academics. It was this reasoning that had led me to turn from them as a group for research to the academic managers. However, as events moved on, they became key players in the politics surrounding the move towards adopting a new commercial VLE platform, as opinion leaders opposing the move rather than supporting it.

The move towards adopting a standard VLE was challenged by the opinion leaders on three fronts. Firstly the justification for retaining the in-house VLE was made on the basis of it having achieved significant external reputation for e-learning for the two Schools who had been most innovative. This was followed by an insistence that the in-house VLE be evaluated for its potential at the same time as the commercial systems were being evaluated. Finally, a call for Southern to define a clear vision and strategy for e-learning was made, to inform the selection of a university-wide VLE.

The justification for retaining the in-house VLE that was tailored to each School's needs was put forward by two opinion leaders with reference to the reputation for e-learning that their Schools had gained within their external disciplinary and professional communities. School C's VLE had been described by the director of a key professional organisation as:

> The most effective virtual learning environment supporting training in [the discipline] in the UK.

This claim had been used to support the School's successful bid to become a Centre for Excellence in Teaching and Learning (CETL). The rationale for this School to retain its VLE included the fact that it acted as an externally facing website and was also used as a marketing tool to attract prospective students. The concerns expressed by the academics in the School were mainly around the

possibility of losing market credibility with prospective students, employers and professional bodies and damaging the reputation of the School with its professional community.

I experienced a heated debate about this at one School committee meeting where I spent an uncomfortable 30 minutes explaining how the decision to move to a university-wide VLE had been made. In my notes in my research diary following the meeting I recognised the power of the School's learning technologist who had now become the real opinion leader in that School, rather than the senior academic, and was to become the prime advocate of retaining and developing the in-house VLE. I noted how important it would be to gain his approval of whatever platform we took forward, not just for his School, but for the others as well.

The opinion leader in School A was also concerned that the School would lose its lead in e-learning when comparing itself with similar departments in other universities. She contended that all commercial VLEs are content driven and therefore stifle creativity and innovation in teaching and learning. Her School had achieved a reputation for being at the forefront of e-learning innovation through developing the first Foundation degree to be delivered through full e-learning and she was concerned that this would be at risk:

> My greatest concern is that what works for campus based [programmes] will not be so good for full e-learning programmes and we need to consider this. (Opinion Leader email)

The extent of personal identity that had been built up through being an opinion leader for e-learning was demonstrated:

> While I am trying to keep an open mind it is not possible where a huge personal investment has been made to take (Southern) University strategy forward in the area of flexibility. (Opinion Leader email)

Fears were expressed that the in-house VLE would not be included in the evaluation at the same time as the commercial systems were being evaluated and after a meeting of all the opinion leaders when they had got together to discuss

what seemed to be too much influence being exerted by the 'centre', their position was summarised in a long email to the PVC. This put the case for continued diversity of platforms because each School had developed a VLE system that met it own needs. Yet it also suggested that the reason for the development of this diversity was the lack of a clear central steer for e-learning, both of provision and strategy, as the following demonstrates:

> While we recognise the advantage of standardising the provision of a T&L platform for the University, it needs to be acknowledged that we are not starting from a blank sheet. Several Schools have invested significantly over time in developing platforms and mechanisms which meet their T&L needs. This has happened in the absence of early centralised provision, and in the absence of a clear vision and strategy for e-learning by the University. (Opinion Leaders' email)

But an equally important concern, perhaps more so, was that the process was being rushed and not given due care and concern for collegial values:

> We feel that some people in the University may not be adopting an open mind on this and an attempt is being made to rush through an important decision by evaluating external systems and dismissing what we already have and thus the work that has already gone into providing for our needs. (Opinion Leaders' email)

As the consultation period continued and demonstrations of different commercial VLEs were arranged, yet another proposal was offered by School C in a paper to the E-learning Steering Group. A very plausible-sounding option for developing the in-house VLE was presented that envisaged a student portal as the common interface with links off to the different Schools' VLEs. These could be compiled from a range of 'best of breed' components in the spirit of the original, but updated when necessary, and therefore:

> Each School VLE would be slightly different but if a student chose to study in two Schools they would use a familiar front end (students portal) and a familiar back end (components) but the bits in between would be understandably different – with each programme/School emphasising different learning styles which would reflect the face to face activities of the programme. (Internal proposal paper)

This development, the paper's author claimed, would "set us apart from competitors with a distinctive and flexible approach" (Internal proposal paper).

One of the objections to moving to a commercial VLE was that the University would become one among many users and lose its distinctiveness. Each 'best of breed' component could be looked after by a different learning technologist who would become a champion for that component. In distributing responsibility for each component to a different learning technologist, the proposal demonstrates recognition of the growing importance of the role. These individuals were also becoming fearful that their role and usefulness within their School would be reduced if there was a standardised VLE that was managed by the 'centre' and that allowed them no rights over adapting it

There was little reference to the technical quality of the in-house VLE, which was rather primitive in comparison even with the entry level versions of the commercial packages. The time involved in developing the capabilities of the in-house VLE to a standard matching that of a commercial VLE was estimated by IT Services to be three years, and in that time the commercial VLEs would have been further developed. The VLE had become a symbol and a representation of innovation, and as Surry and Farquhar point out, "superior technology does not always steam roll inferior technology, as the determinists believe" (Surry and Farquhar 1997:11/13), and so in this case, even if a technologically superior innovation became available, the original around which identities had been formed would prove difficult to replace.

Support for the move towards a commercial platform emerged surprisingly from the opinion leader in School D, whose staff, although they realised they had the technical expertise to develop their own websites, accepted that the University needed an e-learning platform that was user friendly for all staff and students to use. They just wanted a decision on which one to be made. It was revealed that the staff in this School had always been very sceptical of the in-house VLE development since the day it was first demonstrated to them because they could not see how its development could be sustained in the long term.

Pressure on the Change Agency

The diffusion model assumes that the Change Agency will remain the constant champion of the innovation throughout, but as I identified in chapter 4, the University executive was not likely to be the firm innovation champion that was necessary in this case, because of the devolved organisational context. The lack of constancy of the Change Agency in this case, caused through a combination of collegial pressures from devolved Schools and a tendency to risk aversion, was not compatible with strong leadership in this time of great confusion and anxiety.

The PVC's response to the email from the opinion leaders, referred to earlier, demonstrated the difficult position he found himself in. He starts by stating firmly that the change is inevitable:

> The move to a single VLE is inevitable, for two main reasons. The first is the standardisation of the interface we present to our students – increasingly, I see that students may take units from more than one School. To have a plethora of platforms makes us look daft. (PVC)

He continues to suggest that the second reason is financial. He recognises that, to appease collegial values, the in-house VLE should be a candidate for evaluation along with the commercial systems, but clearly hints that, in his opinion, it is not realistic to expect that that it will be the chosen option:

> [in-house VLE] has served us well in many respects, but, from the outset, it was more of a concept VLE than a production one. We are not a software house, and are not resourced to produce industrial strength software. Let us not lose sight of that. (PVC)

Eventually a paper was prepared by members of the E-learning Steering Group which set out the advantages and disadvantages of the in-house VLE and commercial options, and was presented to the University executive for its members to make the first decision on the way forward, should the University remain with its in-house VLE or consider a commercial provider? The opinion leaders supporting the in-house VLE continued to lobby for it both within and outside of the formal consultation process, by complaining in emails about the veracity of the Steering Groups' paper and by meeting separately with the Vice

Chancellor. All of which appeared to be putting considerable pressure on the PVC who did not appear to be getting the support he needed to obtain the decision he needed. In response to yet another email from the in-house supporters, he indicates his growing exasperation with a management approach that allowed such confusion to occur when he was attempting to manage the complex situation in a fair and open manner, and by implication, that others were not:

> I have said all along that we should play this by the book (PVC)

After the University executive had considered the proposal and the decision to go down the commercial route was finally made, it was reported to me by the PVC that the VC, rather than issuing a definitive decision herself during the meeting, had said that she wasn't going to go against a decision that had already been made, implying, in so many words, that whatever she thought about this matter was irrelevant, the decision had already been made by others, thereby absolving her of actually having to make the final decision herself.

The role of the change agent: Survive, resist, evade, or subvert?

Where was I, the researcher-practitioner, while all this was going on? I identified myself as the change agent, whose role in the innovation diffusion process is to "influence clients' innovation-decisions in a direction deemed desirable by the change agency" (Rogers 2003:366), which, in this case, was influencing academics to adopt e-learning in support of the corporate strategy to increase flexible delivery promoted by the University's senior executive. At the start of this study I proposed that the tensions arising for the role of the change agent in such a contested context could be explored and exposed in order to add further to the value of the diffusion model in explaining the diffusion process in universities. In the context of introducing e-learning into universities, the change agent role is often undertaken by those located in central educational development services similar to the position I was in during the events portrayed in this case study. However, reflecting on these events has made me question both my identity as change agent during the key stages of this innovation adoption process and the extent to which the innovation diffusion model has explanatory power for the role

in this organisational context, especially in the HE sector, as I discuss in the next section.

Key factors affecting the success of the change agent in encouraging adoption include ensuring that the diffusion programme is compatible with and adapted to client' needs and an orientation to the client rather than the change agency (Rogers 2003). The first of these factors was certainly important in the early stages of adoption of e-learning at Southern using the in-house VLE when the innovation was very heavily adapted to the needs of one School. However, as was demonstrated in the previous sections, this approach, although bringing success initially, limits the capacity for the organisation to change direction when necessary. In the case of innovation requiring a high level of technical expertise, Rogers suggests that decentralised diffusion, which was the approach in this case, is less appropriate because it is less easy to quality control the subsequent development of the innovation (Rogers 2003). In this way, an ineffective innovation may actually diffuse quickly but when it is superseded by a more effective technology, adopter resistance to switching to the new technology becomes very strong because the original has been subjected to a high degree of local adaptation.

The second success factor, orientation to the client, is aided by the extent of homophily between the change agent and the client, but in acting as a link, or bridge, between the change agency and the client group, the change agent is more likely to be heterophilous to both groups. With greater technical knowledge of the innovation than the client, the change agent is more likely to be heterophilous to that group, and yet by being of lower status than the change agency they are likely to be heterophilous to that group also. Rogers suggests that this may leads to the change agent being "a marginal figure with one foot in each of two worlds" (Rogers 2003:368). There is limited research in the diffusion tradition exploring how the change agent operates effectively in this marginal existence in the organisational context, particularly if she is in a managerial position and responsible for the department that is promoting the innovation.

Although I did not find the diffusion model sufficiently detailed to explain the complexity of my position in this case, I did find reports of such experiences within the educational development literature. As I noted earlier, educational developers are frequently positioned as change agents and a similar shadowy identity is experienced by them. Land concludes that educational development is a "problematic enterprise and a fractured community within higher education" that although growing, is still "vulnerable and marginal" (Land 2004: 191). My reflections on the role of the change agent in innovation diffusion, and consequently my reflexive analysis of my researcher 'self', prompted me to draw on this literature to seek greater illumination of my position, as I discuss next.

As a figure within a central service of the university, an educational developer's ambiguous identity stems from the fact that, unlike the academic departments which have their own resource base, the educational development unit is an 'overhead', dependent on funding from the university to exist. This places educational developers in the ambiguous position "as promoters of academic values and, at the same time, as foot soldiers of the administration and representatives of 'the university' (Rowland 2007:11), a position that may compromise their neutrality but at the same time protect their position in the university hierarchy (Land 2004). Manathunga (2007) recognises that the pressure on educational developers to embrace the performativity of university managers' discourse can drive a wedge between themselves and the academic colleagues they seek to support. Many educational developers migrate into this area of work after a successful academic career in an academic department and experience a type of culture shock as they have to adjust to being an 'outsider'. She names this confused sense of identity and dislocation experienced by educational developers as "unhomeliness", similar to the experience of migrant workers (Bhabha 1994 cited Manathunga 2007:27), when they are displaced from their families and communities.

As an educational developer in the University I did indeed find myself positioned, often uncomfortably, between the management and those affected by the changes associated with the introduction of e-learning, although I cannot claim to have experienced Manathunga's sense of "unhomeliness". I have taught on academic programmes and been a programme leader, but my university career

has always been within a central service so I have become accustomed to the ambiguity of this inside-outside position. While I was writing up the analysis of the politics and power plays in the paragraphs above that went on during the VLE consultation process, I recalled feelings of intense exasperation when the academic departments referred to professional services as 'the centre', as if they were attributing some power to us, whereas, in reality, it feels as if we are more on the periphery when it comes to having a voice in the organisation and reinforces the impression that there is still a strong cultural divide between academics and 'the centre'. Forging a professional identity in this environment seems to depend on one's willingness to accept or contest the managerial discourse you are charged with representing. Grant (2007) for example, suggests that a distinction can be made between ones' position as a 'peripheral' outsider or a 'central' outsider. As a peripheral outsider you adopt a position that contests management discourse and as a central outsider you identify with it.

As, in the course of my research, I moved between VC, PVC, academic managers and academics, I preferred to think that I was engaging in "mindful role-playing to achieve worth-while ends" (Grant 2007:41) as the "light-footed shape shifter who slips around the cracks of our institutions, attempting to survive, resist, evade, and subvert the deathly excesses of the accounting logic of performativity" (Readings 1996 cited Grant 2007:41). This is a far more sophisticated view of the change agent than that presented in the diffusion model. It highlights my ethical dilemma; which of these have I been engaged in? Surviving? Yes, so far. Resisting? Not overtly. Evading? No, I recognise the logic of the University's drive towards performativity and accept the responsibility of my position to support it; Subverting? Not enough; as my research progressed I experienced a growing frustration that although the in-house VLE was eventually going to have to be replaced if the management's strategic objectives were to be achieved, the approach would in fact have been appropriate for such a devolved organisation if the platform had proved sustainable. As we went through this period of change, I experienced concern at the amount of disruption my colleagues were experiencing, but at the same time reassurance that the decentralised approach would have worked. If we had promoted a commercial platform to begin with, rather than the in-house solution, the organisation might have been further forward in its use of e-learning.

Conclusion

This chapter concludes the case study by reflecting on the final elements of the innovation diffusion model I have selected to study, the role of the change agent and that of opinion leaders. The extent of the local adaptation of the in-house VLE which the opinion leaders had been responsible for leading in their respective Schools had enabled them to build a reputation for innovativeness. They were well networked within their Schools, across the University and also externally in the HE sector. Any change to the innovation around which they had built their own identity was likely to appear to threaten this reputation and therefore to be resisted. A further explanation for their hostile reaction could be that by overtly supporting the change to a standard, institutional VLE, they would have indicated to those in their social networks that were succumbing to the demands of the 'centre', a position that deviated from the norms of the social system (the School) in such a devolved organisation. Their credibility within their School might be lost if they became too closely associated with the position of the change agent (Rogers 2003). The collegial nature of the University then enabled the opinion leaders to directly approach the University executive with their concerns.

Without this explanation of events offered by the diffusion model, this reaction of the opinion leaders could have provided another opportunity for the change agent to report on the irrationality of their behaviour in refusing to consider adopting a superior technology. Since the voice of the change agent is often the one reporting on the implementation of e-learning, we need to be aware of the pro-innovation bias this may be supporting in e-learning research.

For the change agent, "working on the "fault lines" (Rowland 2002:52) between teaching and research, between teachers and students, between managers and academics can be an uncomfortable space" (Manathunga 2007:25), as I experienced for a time. This position is not sufficiently explained through the diffusion model.

I am still uncomfortable with the picture painted by Grant's description of the educational developer as a shape shifter slipping around the cracks of the institution (Grant 2007:41). Although it is more colourful than the view of the change agent as a "marginal figure with one foot in each of two worlds" (Rogers 2003:368) it seems to suggest a rather untrustworthy, deceitful character unable to exercise professional integrity. I see my role more as providing a bridge or a link rather than slipping around the cracks, so I was particularly pleased to receive the following email from one opinion leader after a particularly fraught exchange of views at one meeting during the VLE implementation. I took it as an indication that I was capable of bridging the two worlds:

> Dear Janet
> Thanks for your contribution today to the VLE discussion at School Committee, and for being so open and clear. I hope it didn't feel too much like you had come into the lion's den! You can see that people feel quite strongly about the subject, but I'm sure you would agree that we all want the same result – the best possible VLE platform for [School] and for the University.
> Cheers
> [Opinion Leader name]

I move on now to my final chapter in which I draw together my conclusions from this research into the impact of the introduction of e-learning into this University and the processes of change management that took place.

Chapter 8: Conclusions and final reflections

Images through which change in universities is researched and revealed

Discussion about implementing change in universities is often enlivened through the use of colourful images reflecting the complexities of their contexts. They have been described in the past as 'loosely coupled' organisations (Weick 1976) and more recently as 'congeries of little ivory gazebos' (Greenwood and Levin 2001). They are in the process of moving from 'collegial' to 'enterprise' organisations (McNay 1995). The impact of e-learning on this environment is similarly described in terms that reflect the sometimes chaotic experiences of those seeking to explain what has happened and why. At best, this terrain may be charted using 'muddy maps' (Taylor et al. 1996) but those involved have to be aware that they are situated within the 'ecology of online games' (Dutton et al. 2004). Descriptions of the implementation process as a 'battle' (Luckin et al. 2006) heighten the sense of drama surrounding the issue. Leadership in this context is described collegially as providing a 'compass in a swamp' (Bargh et al. 2000), but in contrast to this, Rossiter found that for e-learning initiatives to be successful, leadership from senior executives had to be much more robust:

> Astute judgement and inspired leadership were found to be the differentiating factors in the organisational decisions which influenced the degree to which the innovation had been embedded. (Rossiter 2006:251)

Such rich images suggest a fertile environment for research into the implementation of change.

The aim of my research was to explore the process of change management in a university which for me, the insider researcher, was both familiar homeland and foreign terrain. The implementation of e-learning was chosen as the specific focus for this study because it represents both a driver for change and potential means of accommodating change being driven by other strategic priorities for higher education. It was also directly relevant to my own professional practice. I have examined change processes in this context through the conceptual framework of the innovation diffusion model (Rogers 2003), using it to underpin the research in the following ways. In conjunction with a review of previous research, it prompted

the identification of the research questions and the actor groups from whom respondents might be sought. It was then used to explore the findings, as discussed in the previous chapters. Finally, in this last chapter I intend to comment on how my findings can in turn contribute to the body of knowledge on innovation adoption and diffusion research and aid further understanding of diffusion in a devolved, loosely-coupled organisational context. These findings challenge some aspects of Rogers' model, in particular, aspects relating to the cycle of innovation in organisations and the attitudes of early/late majority adopters, and affirm others, including the roles of innovation champions, opinion leaders and change agents.

So, using the innovation diffusion model as a sensitising device to highlight areas for investigation, the research studied the perceptions and experiences of the different actors involved in the process of moving towards the implementation of e-learning. These include the 'champions', ie: the University executive and academic managers; the 'adopters', ie: academics, and their social networks; and the 'change agent', ie: the researcher. In this respect, it is important to note that the study did not aim to provide a detailed exposition of the strengths and weaknesses of e-learning itself, its intention was to gain a richer understanding of the impact on individuals of adjusting to the perceived strategic imperative of implementing 'high tech' learning technologies in a traditionally 'high touch' campus-based university environment and to assess the importance of this for change management in universities. Nor did the research specifically set out to test the validity of Rogers' model, however, both criticisms and affirmations can be made about its utility in the devolved context of the University, as I explain below.

I now move on to offer a more detailed discussion of the findings, followed by a summary of the overall value of the work and a review of its contribution to professional practice in the concluding paragraphs.

Innovation adoption and diffusion in organisations: Challenges posed to Rogers' model by the complex structure of universities

As I outlined in Chapter 2, the diffusion of innovations model (Rogers 2003) offers four specific advantages for researching change management associated with implementing e-learning. It encourages the researcher to access the viewpoints of key players affected by the change; it allows for some of the messiness of the change process to surface; it allows for analysis to be undertaken at the level of both the individual and the institution; and finally, it allows the voice of the change agent to be heard as a separate entity. In addition to this, the examination of innovation adoption and diffusion within an organisation then adds a further set of variables whose impact can be considered. These variables include the extent to which the organisation is centralised or devolved, the leadership styles of those involved in supporting and implementing the innovation and the social networks of the organisation through which information about the innovation is disseminated (Rogers 2003). This holistic use of a range of issues drawn from the model, as portrayed through my research, is unusual, since diffusion research in e-learning has drawn mainly on just one or two key aspects of the model such as the characteristics of the adopters or attributes of the innovation.

The possibility of observing a variation in the traditional cycle of innovation diffusion in the context of universities might be anticipated, given Rogers' definition of an organisation, as "a stable system of individuals who work together to achieve common goals through a hierarchy of ranks and division of labor" (Rogers 2003:404). This definition is very much at odds with reality when the organisation in question has a collegial structure designed to protect academic judgement and a labour force dedicated to the exercise of professional autonomy (Bargh et al. 2000: 153). As I have found, the decentralised nature of the University, the autonomy of potential adopters and the impact of these factors on managerial actions, had both a positive and a negative influence on innovation diffusion in the following ways.

The cycle of innovation adoption and diffusion in decentralised organisations is likely to be very closely geared to meeting local needs in response to specific problems. Decisions about adoption are made locally and a high degree of local adaptation, or re-invention, of the innovation takes place. I suggested in Chapter 2 that the devolved nature of a university made it likely that this pattern would be observed. The strategy of encouraging innovative departments to forge ahead with their own e-learning developments can promote early wins but then become a source of tension later on when the innovators may require a specific type of technological solution that is not applicable to the majority (Holt and Thompson 1995) or, as in this case, the organisational strategy requires a change of direction towards a more centralised approach. I went on to describe in Chapter 4 the position at Southern University, where an incremental approach to developing e-learning initially using separate applications, followed by a strategy of developing an in-house VLE, had encouraged a diversity of adoption levels across the decentralised academic Schools to emerge, some of which were highly innovative. The in-house VLE was re-invented to meet the needs of the innovators in some departments and in others, VLE platforms that had been adopted earlier were also maintained in parallel with this development.

However, when in response to internal and external pressures, the feasibility of continuing with the in-house development and its variants was re-examined at Southern and the decision to move towards one standardised commercial VLE platform was eventually made, the nature of the events that took place and the emotions that were displayed during the period leading up to the decision, demonstrated the extent to which the local adaptation had allowed extremely strong departmental identities to be formed around innovativeness associated with its adaptation, despite the ambivalent attitude displayed toward e-learning and its limited adoption by individual academics.

This partially confirms the applicability of the innovation diffusion model as applied to innovation in organisations, although it also challenges the assumptions made within the theory about the nature of organisations. It may be appropriate to amend the somewhat naïve definition of an organisation above since it underestimates the dysfunctional potential of the devolved nature of universities to inhibit innovation diffusion, as demonstrated in this case.

On the other hand, the theory's assertion that centralised organisations are less innovative than those that are decentralised because power is concentrated on relatively few individuals (Rogers 2003) may be moderated by the experience of this case. At times a clear authority decision on innovation adoption at the level of the organisation is needed in order to prevent unhelpful disagreement between the different departments of the decentralised organisation that threatens to delay or even discourage sustained innovation.

In this respect, my work adds to the findings from other research that examined the later stage of embedding an innovation such as e-learning (Rossiter 2006). Rossiter suggests that universities should aim to develop a change strategy that delivers an overall system balance between order and disruption over time, but one that does not necessarily strive for system equilibrium at all times (Rossiter 2006).

Challenge to the characterisation of innovation adopters: academic identity and mainstream majority adopters

Within a devolved university an authority innovation-decision to adopt an e-learning platform may be made either at the centre or within each department, but wherever it is made, the actual use of e-learning cannot easily be mandated by the authority after the decision has been made. Its subsequent use is contingent on this innovation being adopted by individual academics who have to be prepared to change their approach to teaching. However, the traditional autonomy that academics have over their work appears to be declining in the face of the ever increasing rationalist approach to managing universities. The diffusion model offers many avenues to explore when researching adoption, covering either the categories of adopter or the characteristics of the innovation. Often it is the innovator and early adopter categories who are the subjects of the investigation, and they may be praised for leading the way or be criticised for being too far ahead of the capabilities of the organisation to support them, but my research has allowed the voice of the early/late majority 'mainstream' adopters to be heard. Research focussing on the barriers to adoption often identifies first-order problems such as lack of time or resources and frequently denounces the

intransigence of academics and their unwillingness or inability to adopt new approaches to teaching. In common with diffusion research into other areas, particularly studies investigating social problems, the blame for lack of adoption is often placed on the individual. However, it is now possible to suggest that this antipathy to change is not the result of innate conservatism or refusal to adapt and confirms Rogers' assertion of the need to see adoption through the eyes of the respondents:

> Simply to regard the adoption of the innovation as *rational* (defined as the most effective means to reach a given end) and to classify rejection as stupid is to fail to understand that individual innovation-decisions are idiosyncratic. They are based on an *individual's* perceptions of the innovation. (Rogers 2003:116)

Despite evidence to suggest that academic autonomy is becoming illusory in the case of Southern, the concerns of these 'mainstream' academics about e-learning arise from a strong desire to protect what has become established as a very powerful feature of their academic identity, their close and successful face to face relationship with their students. Resisting e-learning is in fact an entirely rational act designed to strengthen a relationship based on 'being there' with the students, despite the diminishing quality of that relationship due to the pressure of increased student numbers and changing student expectations. They are not yet prepared to embrace the 'disembodiment' or 're-positioning' required by e-learning. There is also a reluctance to challenge students by using new and unfamiliar learning experiences such as e-learning because of the negative student feedback that may result, which, in turn, might have a negative impact on the line managers' perceptions of those academics. However, their inability to use learning technologies may quickly become detrimental to their relationships with students, who are demonstrating what has been described as a "profound shift" (Conole et al. 2006:4) in their use of technologies to access a far wider range of information sources than those signposted by academics, to synthesise and publish their findings and collaborate with their peers in a way which is far removed from the academics' own experience.

An exception to this pattern of behaviour was observed with the research-active academic, Joan, who had the confidence to challenge her students to learn in

ways unfamiliar to them but, being concerned to maintain her research profile, lacked the time to find out more about e-learning. Again, her 'failure' to adopt e-learning was also entirely rational from her perspective because it would have led to less time for research. This suggests that time spent by the change agent designed to foster links with academics like her might be a useful strategy, since their support needs may quite probably be hidden from the view of educational developers as they may well be stereotyped as laggard adopters.

This further suggests that advocating support for the concept of Moore's chasm (Moore 1991) may divert the change agent's focus away from individuals such as Joan, who have a more balanced relationship with their students, ie; both challenging and supportive, since it proposes that adoption efforts should be concentrated on the early majority in an effort to cross the chasm between them and the early adopters, rather than focusing on the late majority and laggards. Furthermore, the concept of a sharp discontinuity between early adopters and the other categories of adopter, proposed by Moore and adopted by others (Conole et al. 2007; Geoghegan 1998) is disputed by Rogers (2003), as already noted. At the level of the organisation, if applied to departmental innovativeness with e-learning, it may be more useful to consider the chasm as a glacier, with lots of peaks and ravines, rather than one uniform 'Grand Canyon'.

Social networks and the isolation of the academic

The innovation diffusion theory emphasises the influence of social networks in enhancing diffusion and the limited reference to this as a factor in e-learning diffusion research suggested that it would be a worthwhile process to investigate. The account of Helen, recording her feeling of isolation in her academic job in the early stages of this research, and the strength of those feelings, resonated with me, so I developed a line of questioning based on this experience in the subsequent interviews with academics, with the aim of concentrating on the homophilous or heterophilous characteristics of the academics' contacts. However, their accounts also confirmed that this isolation in the workplace was not unique, nor was it much ameliorated, in the case of academics in a post-92 university, by their external professional or academic discipline contacts. This suggests that relying on social networks to encourage the spread of e-learning

innovation has limitations as a strategy. As Rogers suggests, diffusion research is enriched by asking the adopters directly about their process of adoption and it has often ignored the importance of the individual adopter's network relationships, which this study has highlighted. However, the scale of this research did not allow for a full investigation of this network factor and could well be worth further investigation. Consideration should be given to making use of the more traditional social networking analysis research techniques. This has highest validity but it also requires a large sample and is complex to analyse.

One aspect of social networking that did emerge was the importance of local support for e-learning. The support that was most valued by academics in their efforts to adopt e-learning was locally based within their School, allowing them to walk down the corridor to ask a person for help. Having a School-based learning technologist seems an obvious support to put in place to encourage adoption, and although some Schools in this case did that, there was no opportunity in a devolved context to insist that all followed this path, even when the central funding was provided to Schools for e-learning development. The debate in universities about the value of centralised or locally distributed support such as this continues, but this work has shown that locally based support is an important factor in adoption.

More research could be done using the innovation diffusion model into the emerging role of the learning technologist and their place in adoption and diffusion as heterophilous or homophilous contacts. Some interesting parallels might be drawn between a case cited in Rogers (2003) about the role of a project researcher, who became an influential opinion leader, and the actions and accounts of learning technologists in the case of e-learning adoption and diffusion.

The need for the academic to work effectively as a member of a multi-professional team in both developing resources for learning and in supporting students to use those resources will become more important with the growth of e-learning and although team work and collaboration with academic colleagues is familiar territory for research-active academics, this research suggests it may be

more of a challenge for those academics whose identity has been forged through face to face contact with students and where team teaching has been abandoned as a result of efficiency gains. Conversely, those 'digital native' staff who are new entrants to academic work and are as familiar as their students are with social networking technologies, may find the face-to-face pedagogic approaches a challenge. Both groups will need to recognise the increasing opportunities for students to participate in knowledge creation through the use of Web 2.0 technologies.

Innovation champions and the need for risk taking

As champions of an innovation, the senior managers of any organisation play an important role in furthering its adoption and diffusion. My desire to understand the position of university managers in relation to implementing e-learning, and the extent to which they could take on the role of innovation champion in this context, led me to investigate the attitudes of university senior executives and academic managers towards supporting e-learning.

I found the senior executives, the Vice-Chancellor and Pro Vice-Chancellor, perhaps not surprisingly given Southern's history, bound by a need to act according to the traditional collegial academic norms, averse to risk taking but apparently frustrated with the slow rate of change this approach was producing. My work has provided a further illustration of the tensions inherent in the role of university chief executives, supporting previous suggestions that university business appears "largely impervious to the managerial power of the vice-chancellor" (Bargh et al., 2000:153). As I reflected on the applicability of Manathunga's concept of 'unhomeliness' (Manathunga 2007) in relation to my own position in the organisation, I wondered if those who have been leading academic departments and then move into VC or PVC roles experience the same "unhomeliness", or dislocation, as they move from managing autonomous academic departments to being located within what are, effectively, central units. I reflected on the extent to which the need to exercise collegiality to such a degree was unexpected for them and therefore might have been the source of the tensions I noted.

The position of academic (middle) managers is also considered in the literature on the management of universities and similar ambiguities in this position to those of senior executives have been reported (Bryman 2007). However, their role in the adoption and diffusion of e-learning appears to be under-researched. In this study, their influence has been illuminated further by using the innovation diffusion model. As with the senior executives, they too were struggling with a desire to exercise academic collegiality but increasingly expected to adopt TR approaches to managing the outputs of those for whom they were responsible as line managers. They frequently seemed to find themselves in a position where they were defending or protecting their staff. Consequently, in this study it was demonstrated that any messages from the senior executives, for example, in relation to e-learning, appeared to become distorted through these managers' actions as they supported the individual academics in their efforts to maintain their 'high touch' identity by not challenging the driver of the timetable

Relationships between Opinion Leaders and the Change Agent

I have explored the roles of the opinion leaders and change agent in some detail in the previous chapter and now reflect on the implications of these findings for the innovation diffusion model. None of the early/late majority academics interviewed in Chapter 6 referred to members of the group of senior academics responsible for learning and teaching leadership in their Schools as influencing them in adopting e-learning, thereby justifying my initial decision not to include them as research respondents. However, members of this group did become very influential in the later stages of this case in the role of opinion leaders opposing the move to adopt a standard VLE rather than supporting it, as I identified in the previous chapter. This illustrates the complex relationship that exists between the change agent and opinion leaders identified in the innovation diffusion model and confirms Rogers' assertion that opinion leaders "exemplify and express the system's structures" (Rogers 2003:27) in the following ways.

The model suggests that change agents should select and use their opinion leaders carefully and in accordance with the norms of the social system within which diffusion is intended. For example, e-learning innovators are unlikely to

make effective opinion leaders because, as role models, they are too far removed from the other, more traditional, academic members of the School, so early adopters may be more appropriate. Alternatively, change agents can overuse opinion leaders with the result that they become regarded by the system as too innovative and place themselves outside its norms. So, in this instance of innovation diffusion in a devolved organisation, when the 'centre' proposed an innovation that was perceived as a threat to the position of the opinion leaders in their Schools, they opposed the innovation to demonstrate to members of their system that they had not deviated from its norms.

While confirming the theory's position on the role of the opinion leader, my study does appear to extend understanding of the position of the change agent in the innovation diffusion model, in particular where the change agent is internal rather than external to the organisation. In order to explore these issues I had to draw on the growing literature of the professional world of educational developers who experience similar tensions in their role. By using this literature I have informed understanding of the pressures on the change agent who is internal to the organisation experiencing the innovation and a permanent member of it. These pressures have not, so far, been recognised in the diffusion model, which tends to assume that the change agent is an external consultant and therefore a temporary member of the organisation. Further exploration of the role of change agent in this context, specifically in its relationship to the opinion leaders, would be worthwhile.

The overall value of what has been revealed by this study

In researching the field of change management associated with the introduction of e-learning in universities, I have drawn on earlier work that is characterised at its extremes by a dominant TR methodology or, alternatively, by phenomenological angst. What I have achieved in my work is greater understanding of this field by illuminating the position of the actors: managers, academics and change agent, and also demonstrated the interplay between their positions. In the first chapter of their study "Putting the university online", Cornford and Pollock (2003) deconstruct their title into its three component elements in order to explain the complexity of implementing ICT in universities. Like their work, my research has focused on the

process of “putting” the university online and has led to further understanding of the impact that the processes contributing to this activity have had on those involved. The individuals in my study are also members of “the university”, a complex organisation that is composed of numerous devolved sub-sections. The identities of the members of this organisation are difficult to grasp, and they themselves may not even consider that they belong to the organisation, believing that:

> ‘The university’, even for those who work or study within one, is always ‘them’ and never ‘us’. (Cornford and Pollock 2003:10)

Unlike Cornford and Pollock’s work, which includes a number of “online” innovations that illustrate the wider use of ICT innovation in higher education and therefore involves more categories of university staff, mine has focused more narrowly on e-learning and its impact on managers and academics. However, in the same way that these authors suggest that universities have gained greater knowledge about themselves through their increased use of ICT (Cornford and Pollock 2003), this research demonstrates through the case study of Southern University, how greater knowledge has been gained about the implementation of e-learning in universities.

The research therefore offers a deeper understanding of the process of innovation adoption and diffusion as a change strategy in the higher education sector. Having discounted other change management strategies it develops further understanding of how Rogers’ diffusion theory can be used to examine these change processes. It has also identified, through the medium of the case study, some of the model’s shortcomings in the specific context of HE sector organisations. Although primarily aiming to use the diffusion model as a sensitising device to direct the research, rather than seeking to test its validity, an important outcome of the research has been to evaluate the model’s assumptions about the nature of organisations by illuminating the complexity of diffusion in a devolved, loosely-coupled organisation.

In the context of change associated with the introduction of enterprise level e-learning across the university, the adoption of e-learning by academics has often been reported with negative findings and viewed mainly from a managerial

perspective, but my research has contested some of these findings and demonstrated how other factors, in particular, senior management leadership and peer influence, play an equally important role in their decision to adopt, despite the often assumed autonomy of academics. This has enabled me to add to earlier views expressed about the concept of academic identity, in particular, of academics in universities that formerly belonged to the polytechnic sector, and stresses the importance of being aware of its impact when considering change management in universities. By focusing on these features and by gaining further understanding of the perceptions of the two middle categories of adopter, early and late majority, rather than innovators and early adopters, my research has attempted to mitigate the influence of individual-blame bias often found in diffusion research.

Methodologically, in common with many other studies, insider research has again been shown to be a rich yet challenging approach to adopt. By linking it both to the role of change agent as identified in Rogers' model and with the activities of the educational developer, the complex nature of the difficult balance between management and those managed for the insider researcher has been illuminated. This has furthered understanding of the position of the change agent in Rogers' model and also of the role of the educational developer within a university. These areas have been illustrated through an examination of my own reflections on the events that took place in this study that acknowledged the constructionist paradigm. The focus on the diffusion model has allowed me to bring a unique perspective to the management of implementing e-learning lacking in previous literature, since the model has facilitated the bringing together of management and academic voices in the same study and demonstrates the interplay between these two on the way to adoption. It also surfaces the tensions experienced by the change agent who is sometimes caught in the cross-fire of this interplay and therefore lessens the potential impact of pro-innovation bias.

Contribution to professional practice

I find it somewhat ironic that I am afforded the opportunity of undertaking this research that has informed my professional practice by enabling me to explore the tensions between technical rational and collegial styles of managing change

as a result of an initiative, the professional doctorate, that some authors suggest has itself been developed as a result of the rationally driven imperative for universities to have greater engagement with employers and the knowledge economy (Tennant 2004).

Unlike the traditional PhD, the focus of a professional doctorate is both on research and on contribution to professional practice. The PhD was traditionally designed for developing the careers of academics and career researchers; whereas the professional doctorate, such as the DBA, has been developed in recognition of the growing need to provide research programmes that focus on the career development of professionals in the workplace (Bourner et al. 2001) and to encourage significant contributions to the knowledge economy (Manathunga et al. 2004). This has resulted in some fundamental differences between the two. The research for a PhD must be original, but it may not necessarily have practical application, or at least, not in the past, whereas the focus for the research in a professional doctorate should be an original investigation and also apply theories and research to professional practice. The issues researched should arise from the interests and concerns found in the professional's workplace and the objective is not only to make a contribution to knowledge, but also to use that knowledge for the benefit of the researcher's professional community and the researcher's own professional development:

> Rather than perceiving research as an end in itself, the professional doctorates have placed research at the service of the development of professional practice and professional practitioners. (Bourner et al. 2001:71)

The principal ways of making this contribution to practice are through making changes in one's own practice in the work situation and by publishing findings in locations of relevance to the professional community. It is also recognised that the aims of professional doctorates may be wider than those of PhDs and this is illustrated in my work through the range of audiences who are able to make their own generalisations to their own situations from engaging with my findings, as I identify in the next paragraphs.

Keeping pace with the growing body of literature is an issue for research in any area, but another key problem in undertaking research into a subject such as e-learning, especially when the study is undertaken part-time alongside a substantive job, is the rapid rate of change of the technology. This was frustrating not only from a personal view, as I explain further on, but may also detract from the currency of the contribution. However, by focusing on the strategic nature of implementation rather than on the technology itself, I believe I have managed to retain the currency of the research. University managers, academic developers and learning technologists should all find the outcomes of this research of value to their own professional practice, for reasons that I outline below.

It has already been suggested that "generalised theories of management and leadership based on business organisation models are of limited usefulness" in universities (Bargh et al. 2000:160), so university managers at a senior level should gain from this work insight into the need to consider ways of ensuring, during any change process, that assumptions about their managerial intentions and proposed changes are not being undermined unintentionally by the actions of their middle managers. Although I have not disseminated this finding in any depth yet, and may be restricted in doing so by considerations of confidentiality, I have already taken opportunities to engage senior managers in a consideration of the issues surrounding the strategic introduction of e-learning into universities and factors affecting its adoption by academics (Hanson 2003; Jenkins and Hanson 2003). These publications were informed by my contribution to the outcomes of the study tour organised jointly by ALT/SURF in 2002 to examine e-learning in Australian universities (Hanson 2002).

The numbers of those holding academic development posts has increased as a result of the establishment of the Centres for Excellence in Teaching and Learning (CETLs) and these individuals may be situated in a central unit, within a CETL or in a faculty-based support unit. The role of the learning technologist in supporting the engagement with e-learning is also maturing. Individuals in both types of post may gain insight from this research into why innovative practice is slow to penetrate the perceptions of those they seek to influence in its use. My presentations on the importance of networks in the adoption of e-learning to the

Networked Learning and E-Learn conferences outlined my formative thinking on this issue (Hanson 2004a; Hanson 2005). My more recent analysis of the tensions arising in the role of the change agent and the similarities with the role of educational developer remains to be disseminated.

The challenge for managers and academic developers of encouraging the adoption of technological innovation will remain. Although the days of the VLE may be numbered (Holtham and Courtney 2005; Stiles 2007) and the HE sector may have "reached the end of the beginning of the battle to embed e-learning in HE" (Luckin et al. 2006:320), the advances in social technologies and affordances offered by Web 2.0 are already presenting different opportunities and challenges, although the familiar hype of the innovators will no doubt continue to irritate the early/late majority adopters and potentially dissuade them from adopting:

> Web 2.0 is, in our view, a technology with profound potential for inducing change in this sector. We expect that learning will be opened up by the catalytic effects of Web 2.0 technologies, allowing greater student independence and autonomy, greater collaboration and increased pedagogic efficiency." (Franklin and van Harmelen 2007:3)

The ongoing impact of these changes in the learning environment on academic identity needs to be acknowledged and in this area there are still opportunities to disseminate findings from my research further and to explore the concept of 'academic presence' in these new environments, particularly in relation to the concept of students as co-producers of knowledge.

The tensions I have experienced in undertaking insider research may be added to the experience of others in similar positions, from whose writings I have drawn some enlightenment. I hope that my voice joined to theirs (Hanson 2004b) can contribute to that body of knowledge accessed by those undertaking research into their own professional practice. Further contributions would be possible in the areas of insider research, however, the deeper the research progressed, the more confidential the nature of the disclosures became. This led me to request that this work in its entirety remains confidential. I would like to think that further

publications are possible but I recognise that I may find it a challenge to disclose some of the findings and yet retain the anonymity of the organisation and respondents. This thought leads me into my final reflections on the research process.

Reflections on the research journey

Kvale contrasts the truth seeking of the positivist researcher with the qualitative approach of the constructionist interviewer as the difference between "the interviewer as a miner or as a traveller" (Kvale 1996:5). As I finish this last chapter I can reflect on how far I have travelled during the course of undertaking this research. I began with the naïve and pragmatic hope that the research would lead to 'truths' that might inform my practice, and the insights I have gained have certainly been useful, but I hope that I also now leave the reader with a contribution that rises above this personal base and provides a credible view of a research study that offers findings of value to others, recognising that it is based on my interpretation of co-constructed realities.

Numerous factors associated with being an insider researcher were identified in Chapter 3 and have been analysed in subsequent chapters concurrently with my thematic analysis of the data. In addition to being in an insider position I was also researching events relating to the implementation of e-learning that had an impact on my own professional practice. I was at times attempting to manage, as part of my job, the project that was also the subject of my research, which caused me certain tensions. Separating the management of the project from the research activity can become difficult. Inevitably the project moved faster than the research, leading to my feelings of resentment that I could not influence the project with the outcomes of the research, but it also put me in danger of producing a descriptive account of the project that becomes an excuse for the research. It was only when the project came to the end of a cycle that it became possible to return to the research.

Rogers suggests that "the diffusion paradigm provided a basis for creating a coherent body of generalisations, which can be applied to specific cases"

(Rogers 2003:105). I have indeed found the diffusion model to be a useful sensitising device to frame the collection, analysis and interpretation of data in this research, which does make a contribution in two areas. Rogers (2003) suggest that two of the major criticisms of traditional diffusion research are those of pro-innovation bias and individual-blame bias. He suggests that diffusion researchers should attempt to increases their understanding of adopters' motivations for adopting in order to overcome these biases. I hope that this research has increased understanding to some degree of the ambiguities towards the adoption of e-learning by academics in a devolved university and assisted in highlighting the influence of the system on adoption rather than assuming that the individual academic is to blame. My awareness of my insider researcher status has also enabled me to mitigate the potential for pro-innovation bias common in diffusion research. However, both these claims have to be countered by the potential effect of my insider status on the truthfulness of the respondents in giving their views to me, and of course, my own biases brought about through pre-understanding and familiarity that may have led me to over-empathise with my respondents to present them in a more positive light.

The length of time I have spent 'in the field' has resulted in the collection of a large amount of documentary data that I have had to sift through ruthlessly in order to present the background to the case. This has inevitably resulted in the simplification of events and collapsing of time frames but I considered it necessary to highlight for the reader the turning points in the case in order to assist in sensemaking.

Conclusion

Many 'recipe style' approaches to managing strategic change in organisations are available to those involved in this activity but they are nothing more than a starting point; few of them allow for the total sense of confusion that those experiencing the change often undergo as it unfolds. E-learning, as an example of a driver for change, provides a particularly challenging scenario. The innovation diffusion model offers a useful conceptual framework to use in the exploration of change in a complex organisational environment such as a university because of its ability to provide a comprehensive overlay to the

organisational structure and expose the experiences and understandings of different actors. Understanding these is the key to successfully negotiating this swampy terrain, since the actors, in the words of Asa Briggs, are those who have to deliver the play (Dutton and Loader 2002: Foreword xvii).

REFERENCES

Abrahamson, E. and Rosenkopf, L., 1997. Social network effects on the extent of innovation diffusion: a computer simulation. *Organization Science*, 8 (3), 289-309.

Alvesson, M., 2003. Methodology for close up studies – struggling with closeness and closure. *Higher Education*, 46, 167-193.

Arnaboldi, M. and Azzone, G., 2005. Incrementalism and strategic change: a university's experience. *International Journal of Educational Management,* 19 (7), 552-563.

Assink, M., 2006. Inhibitors of disruptive innovation capability: a conceptual model. *European Journal of Innovation Management,* 9 (2), 215-233.

Awbry, S. and Awbry, J., 2001. Conceptual barriers to creating integrative universities. *Organization*, 8 (2), 269-284.

Bargh, C., Bocock, J., Scott, P. and Smith, D., 2000. *University leadership: the role of the chief executive*. Buckingham: SRHE and Open University Press.

Barnett, R., 1997. *Towards a higher education for a new century*. London: Institute of Education, University of London.

Bates, A. W. (Tony), 2000. *Managing technological change: strategies for college and university leaders.* San Francisco: Jossey Bass.

Becher, T. and Trowler, P., 2001. *Academic tribes and territories: intellectual enquiry and the cultures of disciplines*. 2nd ed. Buckingham: SRHE and OUP.

Becker, R. and Jokivirta, L., 2007. *Online learning in universities: selected data from the 2006 Observatory report.* London: Observatory on Borderless Higher Education (OBHE).

Bekhradnia, B., 2005. *Demand for Higher Education to 2015-16.* Oxford: Higher Education Policy Institute (HEPI)
Available from: http://www.hepi.ac.uk/downloads/18HEDemandto2015.pdf
[Accessed 28 August 2007].

Bennett, J. and Bennett, L., 2003. A review of factors that influence the diffusion of innovation when structuring a faculty training program. *The Internet and Higher Education*, 6 (1), 53-63. Available from: doi:10.1016/S1096-7516(02)00161-6 [Accessed 29 March 2006].

Birnbaum, R., 1988. *How colleges work: the cybernetics of academic organisation and leadership*. San Francisco: Jossey Bass.

Blass, E., and Davis, A., 2003. Building on solid foundations: establishing criteria for e-learning development. *Journal of Further and Higher Education,* 27 (3), 227-245.

Blaxter, L., Hughes, C. and Tight, M., 1998. Writing on academic careers. *Studies in Higher Education*, 23 (3), 281-295.

Bloor, M., Frankland, J., Thomas, M. and Robson, K., 2001. *Focus groups in social research*. London: Sage Publications.

Bottomley, J., Spratt, C. and Rice, M., 1999. Strategies for effecting strategic change in teaching practices: Case studies at Deakin University. *Interactive Learning Environments*, 7 (2-3), 227-247.

Bourner, T. and Flowers, S., 1997. Teaching and learning methods in higher education: A glimpse of the future. *Reflections on Higher Education,* 9, 77-102.

Bourner, T., Bowden, R. and Laing, S., 2001. Professional Doctorates in England. *Studies in Higher Education*, 26 (1), 65-83.

Bracher, M., Collier, R., Ottewill, R. and Shephard, K. 2005. Accessing and engaging with video streams for educational purposes: experiences, issues and concerns. *ALT-J, Research in Learning Technology,* 13 (2), 139-150.

Brown, D., 2004. Ubiquity comes fast: wireless comes slowly. *Exchange*, 6, Spring, 25-26. Available from: http://www.exchange.ac.uk/files/eissue6.pdf [Accessed 28 August 2007].

Brown, S. 2002. Re-engineering the university. *Open Learning*, 17 (3), 231-243.

Browne, T. and Jenkins, M., 2003. *VLE surveys: a longitudinal perspective between March 2001 and March 2003 for Higher Education in the United Kingdom*. Oxford: Universities and Colleges Information Systems Association (UCISA).

Bryman, A., 2007. *Effective leadership in higher education: summary of findings*. London: Leadership Foundation for Higher Education.

Clegg, S., Hudson, A. and Steel, J., 2003. The Emperor's New Clothes: globalisation and e-learning in higher education. *British Journal of Sociology of Education*, 24 (1), 39-53.

Coaldrake, P. and Stedman, L. 1999. *Academic work in the 21st Century: changing roles and policies.* Canberra: Higher Education Division, Department of Education, Training and Youth Affairs, Commonwealth of Australia. Available from: http://www.dest.gov.au/archive/highered/occpaper/99H/academic.pdf. [Accessed 28 January 2002].

Coffey, A. and Atkinson, P., 1996. *Making sense of qualitative data.* Thousand Oaks, Cal.: Sage.

Coghlan, D., 2003. Practitioner Research for Organizational Knowledge: Mechanistic- and Organistic-oriented Approaches to insider action research. *Management Learning*, 34 (4), 451-463.

Collis, B. and De Boer, W., 1999. Scaling up from the pioneers: the TeleTOP method at the University of Twente. *Interactive Learning Environments,* 7 (2-3), 93-112.

Committee On Higher Education (CHE), 1963. *Higher Education Report of the Committee Appointed by the Prime Minister under the Chairmanship of Lord Robbins 1961-1963*. London: HMSO.

Conceicao, S. C. O., 2006. Faculty lived experiences in the online environment. *Adult Education Quarterly*, 57 (1), 26-45.

Conole, G., de Laat, M., Dillon, T and Darby, J., 2006. *JISC LXP: Student experiences of technologies. Final report.* Bristol: JISC. Available from: http://www.jisc.ac.uk/media/documents/programmes/elearningpedagogy/lxpprojectfinalreportdec06.pdf [Accessed 12 February 2008].

Conole, G., White, S. and Oliver, M. 2007. The impact of e-learning on organisational roles and structures. *In* Conole, G. and Oliver, M., eds. 2007. *Contemporary perspectives in e-learning research*: *Themes, Tensions and Impact on Practice*. London: RoutledgeFalmer, pages 69-81.

Cornford, J. and Pollock, N., 2003. *Putting the university online: information, technology and organisational change*. Buckingham: SRHE and Open University Press.

Creanor, l., Trinder, K., Gowan, D. and Howells, C., 2006. *LEX: the learner experience of e-learning. Final project report.* Bristol: JISC. Available from: http://www.jisc.ac.uk/uploaded_documents/LEX%20Final%20Report_August06.pdf [Accessed 12 February 2008].

Cullen. J., Hadjivassiliou, K., Hamilton, E., Kelleher, J., Sommerlad, E. and Stern, E., 2002. *Review of current pedagogic research and practice in the fields of post-compulsory education and life-long learning. Final report*. Submitted to the ESRC by the Tavistock Institute.

Cuthbert, R. ed., 1996. *Working in higher education.* Buckingham: SRHE & Open University Press

Damanpour, F. and Schneider, M., 2006. Phases of the adoption of innovation in organizations: effects of environment and top managers. *British Journal of Management,* 17, 215-236.

Darwin, J., Johnson, P. and McCauley, J., 2002. *Developing strategies for change*. Harlow: Pearson Education Ltd.

Davis, F. D., 1989. Perceived usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13 (3), 319-339.

Dawson, P., 2003. *Understanding organizational change: the contemporary experience of people at work.* London: SAGE.

Deem, R., 2002a. Enhancing teaching in higher education: Change agents, the UK Learning and Teaching Support Network Initiative and the case of the UK Education Subject Centre: a critical analysis. *European Conference on Educational Research,* University of Lisbon, 11-14 September 2002.

Deem, R., 2002b. Manager-academics and their constituencies in UK higher education – lessons in how (not) to run universities? *European Conference on Educational Research,* University of Lisbon, 11-14 September 2002.

Denham, J. (Secretary of State for Innovation, Universities and Skills), 2008. *Higher Education Funding 2008-09.* Letter to the Chairman, Higher Education Funding Council for England. London: DIUS. Available from:

http://www.hefce.ac.uk/news/hefce/2008/grant/letter.htm. [Accessed 12 February 2008].

Denzin, N. and Lincoln, Y., eds., 2000. *The handbook of qualitative research.* 2nd ed. Thousand Oaks, Cal.: SAGE Publications.

Denzin, N. and Lincoln, Y., eds., 2005. *The Sage handbook of qualitative research.* 3rd ed. Thousand Oaks, Cal.: SAGE Publications.

Department For Education And Skills, 2003a. *Towards a unified e-learning strategy. Consultation document*. Nottingham: DfES Publications. Available from: http://www.dcsf.gov.uk/consultations/downloadableDocs/towards%20a%20unified%20e-learning%20strategy.pdf. [Accessed 20 September 2007]

Department for Education and Skills, 2003b. *The future of higher education*. London: Stationary Office. Available from: http://www.dfes.gov.uk/hegateway/strategy/hestrategy/foreword.shtml [Accessed 20 September 2007].

Department For Education And Skills, 2005. *Harnessing Technology: Transforming learning and children's services*. Nottingham: DfES Publications.

Drennan, J. M., Kennedy, J. and Pisarski, A., 2005. Factors affecting student attitudes towards flexible online learning in management education. *The Journal of Education Research*, July/August 98 (6), 331-338.

Dunkin, J., 2003. Motivating knowledge workers: lessons to and from the corporate sector. *Higher Education Management and Policy*, 15 (3), 41-49.

Dunphy, D., 1996. Organizational change in corporate settings. *Human Relations,* 49 (5), 541 for 12pp. Available from: ABI/INFORM. [Accessed 12 January 2006]

Dunphy, D. and Stace, D., 1993. The strategic management of corporate change. *Human Relations* 46 (8), 905 for 16pp. Available from: ABI/INFORM. [Accessed 12 January 2006]

Durrington, V., Repman, J. and Valente, T., 2000. Using social network analysis to examine the time of adoption of computer-related services among university faculty. *Journal of Research on Computing Education,* 33 (1), 16-27.

Dutton, W. H., Hope Cheong, P. and Park, N., 2004. An ecology of constraints on e-learning in higher education: the case of a virtual learning environment. *Prometheus*, 22 (2), June 131-149.

Dutton, W. H. and Loader, B., eds., 2002. *Digital academe: the new media and institutions of higher education and learning*. London: Routledge.

Edwards, B., 1999. Inside the whale: deep insider research. *Australian Association for Research in Education (AARE) Conference*, Melbourne, 28 November- 2 December. Available from: http://www.aare.edu.au/99pap/edw99006.htm. [Accessed 28 May 2004].

Eisenhardt, K., 1989. Building theories from case study research. *The Academy of Management Review,* 14 (4); ABI/INFORM Global 532-550.

Eynon, R., 2006. The use of ICTs for teaching and learning in law education: some innovators' perspectives. [2006] *3 Web JCLI.* Available from: http://webjcli.ncl.ac.uk/2006/issue3/eynon3.html [Accessed: 12 February 2008].

Fanghanel, J., 2007. *Investigating university lecturers' pedagogical constructs in the working context.* York: Higher Education Academy. Available from: http://www.heacademy.ac.uk/assets/York/documents/ourwork/research/fanghanel.pdf [Accessed: 4 January 2008].

Finnegan, R., 2006. *Who's creating knowledge? The challenge of non-university researchers.* British Academy Lectures Online. 27 June. Available from: http://britac.studyserve.com/home/Lecture.asp?ContentContainerID=116. [Accessed 26 July 2006].

Floor, P., 23 March 2003. Forum debate: Are universities ready for the virtual world? *Higher Education Forum*, eLearningeuropa.info. Available from: http://www.elearningeuropa.info/doc.php?lng=1&id=1358&doclng=1&p1=1) [Accessed 31 May 2008].

Ford, P., Goodyear, P., Heseltine, R., Lewis, R., Darby, J., Graves, J., Satorius, P., Harwood, D. and King, T. 1996. *Managing change in higher education: a learning environment architecture*. Buckingham: SRHE and Open University Press.

Franklin, T. and Van Harmelen, M., 2007. *Web 2.0 for learning and teaching in higher education*. London: Observatory on Borderless Higher Education (OBHE).

Fulton, O. and Holland, C., 2001. Profession or proletariat: academic staff in the United Kingdom after two decades of change. *In:* ENDERS, J. Ed., *Academic staff in Europe: changing contexts and conditions.* Westport, CT: Greenwood Press, 301-322.

Fu-Yun Yu, Yu-Hsin Liu and Tak-Wai Chan, 2005. A web-based learning system for question-posing and peer assessment. *Innovations in Education and Teaching International,* 42 (4), 337-348.

Gallivan, M. J., 2001. Organizational adoption and assimilation of complex technological innovations: development and application of a new framework. *Database for Advances in Information Systems*, 32 (3), 51-85.

Geoghegan, W.H., 1998. Instructional technology and the mainstream: the risks of success. *In*: Oblinger, D. and Rush, S., eds., *The future compatible campus.* Bolton, Mass.: Anker Publishing, 131-150.

Gilbert, J.F., 2001. *Investigating the barriers to understanding the adoption of ICT in HE*. Thesis (PhD). Lancaster University.

Gilbert, J. and Kelly, R., 2005. Frontiers and frontlines: metaphors describing lecturers' attitudes to ICT. *Educational Technology and Society*, 8 (3), 110-121. Available from: http://www.ifets.info/journals/8_3/11.pdf [Accessed 3 December 2007].

Gordon, G., 2003. University roles and career paths: trends, scenarios and motivational challenges. *Higher Education Management and Policy*, 15 (3), 89-104.

Grant, B., 2007. The mourning after: academic development in a time of doubt. *International Journal of Academic Development* 12 (1), 35-43.

Grant, K., 2003. Making sense of education change at Thistle College: the existence of witchcraft, witches and shamans. *The International Journal of Educational Management,* 17 (2/3), 71-83.

Greenwood, D. J. and Levin, M., 2001. Re-organizing universities and 'Knowing How': University restructuring and knowledge creation for the 21st century. *Organization*, 8 (2), 433-440.

Guba, E. and Lincoln, Y., 2005. Paradigmatic controversies, contradictions and emerging confluences. *In:* Denzin, N. and Lincoln, Y., eds. *The Sage handbook of qualitative research.* 3rd ed. Thousand Oaks, Cal.: SAGE Publications, 191-215.

Hagner, P.R., 2000. Faculty engagement and support in the new learning environment. *Educause Review*, September/October, 27-37.

Hall, C., 2000. *Review of electronic delivery systems*. South Town: Southern University.

Hanson, J., 2002. The strategic implementation of e-learning in Australian universities. *In* P. BOEZEROOY, ed. *Keeping up with our Neighbours? ICT developments in Australian higher education.* York: LTSN Generic Centre, 119-126.

Hanson, J., 2003. Encouraging lecturers to engage with new technologies in learning and teaching in a vocational university: the role of recognition and reward. *Higher Education Policy and Management*, 15 (3), 135-150.

Hanson. J., 2004a. Exploring social networks to understand the diffusion of networked learning in a campus-based university. In: Banks, S., et al., eds. *Proceedings of the Fourth International Conference on Networked Learning*, 5-7 April 2004 Lancaster University, 463-470. Available from: http://www.networkedlearningconference.org.uk/past/nlc2004/proceedings/individual_papers/hanson.htm [Accessed 3 December 2007].

Hanson, J., 2004b. Insider action research: the implications of moving from 'friendly outsider' to 'complete member'. *The Fifth Qualitative Research Conference,* 6-7 September 2004 Bournemouth University.

Hanson, J., 2005. Understanding the role of networks in the diffusion of innovation to support the strategic implementation of e-learning in universities. *In:* Richards, G., ed., *Proceedings of E-Learn 2005*, AACE, 24-28 October 2005 Vancouver BC, Canada, 709-713. Available from: http://www.editlib.org/index.cfm?fuseaction=Reader.ViewAbstract&paper_id=21260. [Accessed 3 December 2007].

Hart, G., Ryan, Y. and Bagdon, K., 1999. Supporting organizational change: fostering more flexible approach to course delivery. *Association for Learning Technology Journal,* 7 (1), 46-53.

Haywood, J., Anderson, C., Coyle, H., Day, K., Haywood, D., and McLeod, H.,

2000. Networked learning in higher education: practitioners' perspectives. *Association for Learning Technology Journal*, 8 (2), 5-19.

Henkel, M., 2000. *Academic identities and policy change in higher education.* London: Jessica Kingsley.

Herbert, A., 2000. Collaborative insider research in VET. *In Future research. Research futures: proceedings of the third national conference of the Australian Vocational Education and Training Association (AVETRA)*, 23-24 March 2000 Canberra Institute of Technology, 169-174. Available from: http://www.avetra.org.au/abstracts_and_papers_2000/aherbert_full.pdf [Accessed 28 August 2007]

Hertz, R. ed., 1997. *Reflexivity and voice*. Thousand Oaks, Cal: Sage.

Higher Education Funding Council for England (HEFCE), 2005a. *E-learning strategy and capital investment funding.* (Circular letter number 05/2005). Bristol: HEFCE. Available from:http://www.hefce.ac.uk/pubs/circlets/2005/cl05_05/ [Accessed: 20 September 2007].

Higher Education Funding Council For England, 2005b. *HEFCE strategy for e-learning*. Bristol: HEFCE, (March 2005/12)
Available from: http://www.hefce.ac.uk/pubs/hefce/2005/05_12/
[Accessed 20 September 2007].

Hockey, J., 1993. Research methods – researching peers and familiar settings. *Research Papers in Education,* 8 (2), 199-225.

Hodge, M., 2002. *Speech to Universities UK Annual Conference.* 11 September 2002.

Holian, R. 1999. Doing action research in my own organisation: ethical dilemmas, hopes and triumphs*. Action Research International,* Paper 3. Available from: http://www.scu.edu.au/schools/gcm/ar/ari/p-rholian99.html
[Accessed 28 February 2003**].**

Holliday, A., 2002. *Doing and writing qualitative research.* London: Sage Publications.

Holt, D. and Challis, D., 2007. From policy to practice: one university's experience of implementing strategic change through wholly online teaching and learning. *Australasian Journal of Educational Technology*, 23 (1). Available from: http://www.ascilite.org.au/ajet/ajet23/holt.html [Accessed 5 February 2008].

Holt, D. and Thompson, D., 1995. Responding to the technological imperative: the experience of an open and distance education institution. *Distance Education*, 16 (1), 43-64.

Holt, D. and Thompson, D., 1998. Managing information technology in open and distance higher education. *Distance Education*, 19 (2), 197-227.

Holtham, C. and Courtney, N., 2005. *Virtual Learning Environments: practitioner perspectives on good practice.* London: Observatory on Borderless Higher Education.

House Of Commons Select Committee On Education And Skills. 2005. *Third Report. of Session 2004-05. UK e-University.* HC 205. London: Stationary Office. Available from: http://www.parliament.uk/parliamentary_committees/education_and_skills_committee.cfm [Accessed 21 September 2007].

Howell, J. and Higgins, C., 1990. Champions of technological innovation. *Administrative Science Quarterly*, 35 (2), 317-341.

Hulshof, C., Eysink, T. and De Jong, T., 2006. The ZAP project: designing interactive computer tools for learning psychology. *Innovations in Education and Teaching International,* 43 (4), 337-351.

Humphrey, B., 1995. *Insider research, the process and practice: issues arising from professionals conducting research within their own working environments.* Thesis (PhD). Deakin University. Available from: http://tux.lib.deakin.edu.au/adt-VDU/public/adt-VDU20040614.122119/ [Accessed 5 October 2007].

Jenkins, M., Browne, T. and Walker, R., 2005. *VLE Surveys: a longitudinal perspective between March 2001, March 2003 and March 2005 for higher education in the United Kingdom*. Oxford: Universities and Colleges Information Systems Association (UCISA). Available from: http://www.ucisa.ac.uk/groups/tlig/vle/index_html [Accessed 21 January 2008].

Jenkins, M. and Hanson, J., 2003. *E-learning series No. 1: A guide for senior managers.* York: LTSN Generic Centre.

Johnson, P., Buehring, A., Cassell, C. and Symon, G., [nd] Evaluating *Qualitative Management Research: Towards a Contingent Criteriology.* Available at: http://bgpinqmr.group.shef.ac.uk/workshop/Facilitators_Guide_2.pdf [Accessed 5 May 2007].

Johnston, S. and McCormack, C., 1996. Integrating information technology into university teaching: identifying the needs and providing the support. *International Journal of Educational Management,* 10 (5), 36-42.

Joint Information Systems Committee (JISC), 2004a. *Circular for Regional eLearning Pilot Projects around Distributed eLearning.* JISC Circular 7/04, 6 September 2004. Bristol: JISC. Available from: http://www.jisc.ac.uk/uploaded_documents/circular7_04.pdf. [Accessed 20 September 2007].

Joint Information Systems Committee (JISC), 2004b. *Effective practice with e-learning*. Bristol: JISC. Available from: http://www.jisc.ac.uk/media/documents/publications/effectivepracticeelearning.pdf [Accessed 20 September 2007].

Joint Information Systems Committee (JISC), 2006. JISC Capital Programme: Call for Projects. JISC Circular 4/06, September 2006. Bristol: JISC. Available from: http://www.jisc.ac.uk/media/documents/programmes/capital/capital%20circular%2004_06%20final%203.pdf [Accessed 20 September 2007].

Jones, N. and O'Shea, J., 2004. Challenging hierarchies: the impact of e-learning. *Higher Education*, 48, 379-395.

Jones, P. and Lewis, J., 1991. Implementing a strategy for collective change in higher education. *Studies in Higher Education,* 16 (1), 51-61.

Kanuha, V.K., 2000. 'Being' native versus 'going native': conducting social work research as an insider. *Social Work*, 45 (5), 439-447.

Kelleher, T. and O'Malley, M., 2006. Applying the Technology Acceptance Model to assess outcomes in a globally linked strategic communication project. *Journalism and Communicator Educator,* 60 (4), 402-414.

Keup, J., Walker, A., Astin, H. and Lindholm, J., 2001. *Organizational culture and institutional transformation.* ERIC-HE Digest Series EDO-HE-2001-04. ED464521. Available from: http://www.ericdigests.org/2003-1/culture.htm. [Accessed 28 August 2007].

Kezar, A., 2001a. *Understanding and facilitating change in higher education in the 21st century*. ERIC Digest ED457763. Available from: http://www.ericdigests.org/2002-2/21st.htm. [Accessed 28 August 2007].

Kezar, A., 2001b. Understanding and Facilitating Organizational Change in the 21st Century: Recent Research and Conceptualizations. *ASHE-ERIC Higher Education Report*, Volume 28, Number 4. Jossey Bass.

Kinman, G., Jones, F. and Kinman, R., 2006. The well being of the UK Academy 1998-2004. *Quality in Higher Education,* 12 (1), April, 15-27.

Knight, P. and Trowler, P.R., 2001. *Departmental leadership in higher education.* Buckingham: SRHE & Open University Press.

Kogan, M., Moses, I. and El-Kawas, E., 1994. *Staffing higher education: meeting new challenges*. London: Jessica Kingsley.

Kvale, S., 1996. *InterViews: an introduction to qualitative research interviewing*. Thousand Oaks, Cal.: SAGE.

Land, R., 2004. *Educational development: discourse, identity and practice.* Maidenhead: Open University Press.

Landfried, K., 2002. Keynote Address - Accountability and incentives: instruments of change in higher education. *IMHE General Conference*, 16-18 September 2002, OECD, Paris.

Lincoln, Y. and Guba, E., 2000. Paradigmatic controversies, contradictions and emerging confluences. In Denzin, N. and Lincoln, Y., eds. *The handbook of qualitative research.* 2nd ed. Thousand Oaks, Cal.: SAGE Publications, 163-188.

Lisewski, B., 2004. Implementing a learning technology strategy: top-down strategy meets bottom-up culture. *ALT-J, Research in Learning Technology,* 12 (2), 175-188.

Littlejohn, A. and Cameron, S., 1999. Supporting strategic change and cultural change: the Strathclyde learning technology initiative as a model. *Association for Learning Technology Journal,* 7 (3), 64-74.

Littlejohn, A. and Sclater, N, 1999. The virtual university as a conceptual model for

faculty change and innovation. *Interactive Learning Environments,* 7 (2-3), 209-225. Available from: http://education2.edte.utwente.nl/ile.nsf/framesform [Accessed 4 June 2001].

Luckin, R., Shurville, S. and Browne, T. 2006. Initiating e-learning by stealth, participation and consultation in a late majority institution. *Organisational Transformation and Social Change*, 3 (3), 317-332. Available from: http://eric.ex.ac.uk/exeter/handle/10036/13334. [Accessed 21 January 2008].

Manathunga, C., 2006. Doing educational development ambivalently: applying post-colonial metaphors to educational development? *International Journal for Academic Development,* 11 (1), 19-29.

Manathunga, C., 2007. "Unhomely" academic developer identities: more post-colonial explorations. *International Journal for Academic Development,* 12 (1), 25-34.

Manthunga, C., Smith, C. and Bath, D., 2004. Developing and evaluating authentic integration between research and coursework in professional doctoral programs. *Teaching in Higher Education*, 9 (2), 235-246.

Martin, E., 1999. *Changing academic work: developing the learning university.* Buckingham: SRHE and Open University Press.

Mason, J., 2002. *Qualitative researching*. 2nd ed. London: Sage.

Mathieu, M., 2003. An integrated approach to academic reinforcement systems. *Higher Education Management and Policy*, 15 (3), 25-40.

McGrath, C. and Zell, D., 2001. The future of innovation research and its implications for management: A conversation with Everett Rogers. *Journal of Management Inquiry*, 10 (4), 386-391.

McInnis, C., 1996. Change and diversity in the work patterns of Australian academics. *Higher Education Management*, 8 (2), 105-117.

McMurray, D., 2001. The importance of 'goodness of fit' between organisational culture and climate in the management of change: a case study in the development of online learning. *Association for Learning Technology Journal*, 9 (1), 73-83.

McNaught, C., Kenny, J., Kennedy, P. and Lord, R., 1999. Developing and evaluating a university-wide On line Distributed Learning System: the experience at RMIT University. *Journal of Educational Technology and Society*, 2 (4), 70-81. Available from: http://www.ifets.info/journals/2_4/mcnaught.pdf [Accessed 21 January 2008]

McNaught, C. and Kennedy, P., 2000. Staff development at RMIT; bottom-up work serviced by top-down investment and policy. *Association for Learning Technology Journal,* 8 (1), 4-18.

McNay, I., 1995. From the collegial academy to the corporate enterprise: The changing cultures of universities. *In* T. Schuller, ed., *The changing university?* Buckingham: SRHE and Open University Press, 105-115.

McShane, K., 2003. Academic identities and blended teaching practice. *In HERDSA Annual Conference, 7-11 July, Christchurch, Canterbury*. Available from: http://surveys.canterbury.ac.nz/herdsa03/pdfsnon/N1127.pdf [Accessed 4 January 2007]

Miles, M. and Huberman, A., 1994 2nd. ed. *Qualitative data analysis: an expanded sourcebook.* Thousand Oaks, Cal.: SAGE Publications

Miller, H.D.R., 1995. *The management of change in Universities: universities, state and economy in Australia, Canada, and the United Kingdom.* Buckingham: SRHE and Open University Press.

Moore, G.A., 1991. *Crossing the chasm*. New York: Harper Business.

Moses, I., 2002. Governing today's universities: institutional identities*. In Incentives and Accountability: Instruments of Change in Higher Education. IMHE General Conference 16-18 September, Paris.*

National Committee Of Inquiry Into Higher Education (NCIHE), 1997. *Higher education in the learning society.* (Report of the Dearing Committee). London: HMSO.

Newby, H., 2002. The management of change in higher education*. In Incentives and Accountability: Instruments of Change in Higher Education. IMHE General Conference 16-18 September, Paris.*

Nixon, J., 1996. Professional identity and the restructuring of higher education. *Studies in Higher Education*, 21 (1), 5-16.

Oblinger, D., 2003. Boomers, X-Geners and Millennials - understanding the new students*. Educause,* July/August, 36-47.

Oblinger, D. and Obliger, J. eds. 2005. *Educating the net generation*. Educause e-book available from: http://www.educause.edu/educatingthenetgen/ [Accessed 20 October 2007].

Oblinger, D. and Rush, S., eds., 1997. *The future compatible campus.* Bolton, Mass.: Anker Publishing

Observatory On Borderless Higher Education (OBHE), 2006. *Diversity or dilution of quality? Wave of new providers is expected in Australia, as Government releases revised National Protocols*. OBHE Breaking News Archive July 2006, Issue 72. Available from: http://cc.msnscache.com/cache.aspx?q=72787323343807&mkt=en-GB&lang=en-GB&w=99d94de4&FORM=CVRE [Accessed 4 January 2007].

Oliver, M., 2006. New pedagogies for e-learning? Editorial. *ALT-J, Research in Learning Technology,* 14 (2), 133-134.

Owens, E., 2006. Conversational space and participant shame in interviewing. *Qualitative Inquiry*, 12 (6), 1160-1179.

Patton, E. and Appelbaum, S., 2003. The case for case studies in management research. *Management Research News*, 26 (5), 60-71.

Pereira, R. E., 2002. An adopter-centred approach to understanding adoption of innovations. *European Journal of Innovation Management,* 5 (1), 40-49.

Perriton, L., 2000. Incestuous fields: management research, emotion and data analysis. *Sociological Research Online*, 5 (3). Available from: http://www.socresonline.org.uk/5/3/perriton.html. [Accessed: 28 August 2007].

Platt, J., 1981. On interviewing one's peers. *British Journal of Sociology*, 32 (1), 75-91.

Potts, A., 1998. 'Tales of the Field': Whose voice? *Melbourne Studies in Education,* 39 (1), 105-124.

Prensky, M., 2001a. Digital natives, digital immigrants, Part 1. *On the Horizon,* 9 (5). Available from: http://www.marcprensky.com/writing [Accessed 28 August 2007]

Prensky, M., 2001b. Digital natives, digital immigrants, Part 2. *On the Horizon,* 9 (6). Available from: http://www.marcprensky.com/writing [Accessed 28 August 2007].

Quality Assurance Agency for Higher Education (QAA), 2004. *Southern Key Findings Letter,* April 2004.

Rae, S., 2004. Where, when and how do University students acquire their ICT skills? Available from: http://www.ics.heacademy.ac.uk/italics/Vol4-1 [Accessed 28 August 2007].

Richards, L., O'Shea, J. and Connolly, M., 2004. Managing the concept of strategic change and management in a higher education institution: the role of strategic and scenario planning techniques. *Strategic Change*, 13, 345-359.

Robson, C., 1993. *Real world research*. Oxford: Blackwell.

Rogers, E.M., 2003. *Diffusion of innovations*. 5th ed. New York: The Free Press.

Rossiter, D. E., 2006. *Embedding e-learning in universities: analysis and conceptualisation of change processes.* Thesis (PhD). Queensland University of Technology, Australia. Available from: http://adt.library.qut.edu.au/adt-qut/public/adt-QUT20060927.102627/ [Accessed 4 January 2007]

Rowland, S., 2007. Academic development: a site of creative doubt and contestation. *International Journal for Academic Development,* 12 (1), 9-14.

Rutter, M., 2006. Tutorial chat: a case study of synchronous communication in a learning environment. *ALT-J, Research in Learning Technology,* 14 (2), 169-181.

Salaman, G. and Storey, J., 2002. Managers' theories about the process of innovation. *Journal of Management Studies,* 39 (2), 147-165.

Salaway, G., Borreson Caruso, J. and Nelson, M., 2007. *The ECAR Study of undergraduate students and information technology, 2007*. Educause Center for Applied Research. Available from: www.educause.edu/ecar [Accessed 29 November 2007].

Salmon, G., 2005. Flying not flapping: a strategic framework for e-learning and pedagogical innovation in higher education institutions. *ALT-J, Research in Learning Technology*, 13 (3), 201-218.

Schwandt, T. 2000. Three epistemological stances for qualitative enquiry: Interpretivism, hermeneutics and social constructionism. *In* Denzin, N. and Lincoln, Y., eds., 2000. *The handbook of qualitative research.* 2nd ed. Thousand Oaks, Cal.: SAGE Publications, 189-213.

Segrest, S., Domke-Damonte, D., Miles, A. and Anthony, W., 1998. Following the crowd: social influence and technology useage. *Journal of Organizational Change Management,* 11 (5), 425-438.

Senior, B., 2002. *Organisational change*. 2nd ed. Harlow: Pearson Education Ltd.

Shannon, S. and Doube. L., 2003. *Factors influencing the adoption and use of web-supported teaching by academic staff at the University of Adelaide.* Adelaide: University of Adelaide. Available from: http://www.adelaide.edu.au/clpd/resources/reports/Non-adoption_report.pdf [Accessed 30 September 2007].

Sharpe, R., Benfield, G. and Francis, R. 2006. Implementing a university e-learning strategy: some levers for change in academic schools. *ALT-J, Research in Learning Technology,* 14 (2), 135-151**.**

Shattock, M., 2003. *Managing successful universities*. Buckingham: SRHE and Open University Press.

Silverman, D., 2001. *Interpreting qualitative data: methods for analysing talk, text and interaction.* 2nd ed. London: SAGE Publications.

Smith, D., Adams, J. and Mount, D., 2007. *UK universities and executive officers: the changing role of Pro-Vice-Chancellors.* London: Leadership Foundation for Higher Education.

Smith, R., 2002. The role of the University Head of Department: a survey of two British Universities. *Educational Management and Administration*, 30 (3), 293-312.

Southern Polytechnic, [1992]. *Strategic Plan 1992-93 to 1995-96*. South Town: Southern Polytechnic.

Southern University, 1994a. *Strategic Plan 1993-1998*. South Town: Southern University.

Southern University, Devolution Working Group, 1994b. *Report on devolution of management control to academic departments.* August 1994. South Town: Southern University.

Southern University, 1999a. *Learning and Teaching Strategy 1999-2002*. South Town: Southern University.

Southern University, 1999b*. Strategic Plan 1999-2009*. South Town: Southern University.

Southern University, 2002*. Strategic Plan 2002-2006*. South Town: Southern

University.

Spotts, T.H., 1999. Discriminating factors in faculty use of instructional technology in higher education. *Educational Technology and Society*, 2 (4), 92- 99.

Stace, D., 1996. Dominant ideologies, strategic change and sustained performance. *Human Relations*, 49 (5), 553 for 18 pp. Available from:ABI/INFORM. [Accessed 12 January 2006].

Stake, R., 1995. *The art of the case study.* Thousand Oaks, Cal.: SAGE Publications.

Stake, R., 2005. Qualitative case studies. *In:* Denzin, N. and Lincoln, Y., eds. *The Sage handbook of qualitative research.* 3rd ed. Thousand Oaks, Cal.: SAGE Publications, 443-466.

Stiles, M., 2007. Death of the VLE? A challenge to a new orthodoxy. *Serials*, 20 (1) March, 31-36.

Summerville, M.W., 2005. Uncomfortable convergence: questions we may dare to ask. *Advances in Developing Human Resources,* 7 (3), August, 293-302.

Surry, D. and Farquhar, J., 1997. Diffusion theory and instructional technology. *Journal of Instructional Science and Technology*, 2 (1). Available from: www.usq.edu.au/electpub/e-jist/docs/old/vol2no1/article2.htm [Accessed 25 January 2008].

Taylor, J., 2003. Managing staff development for online education: a situated learning model. *Journal of Higher Education Policy and Management,* 25 (1), 75-87.

Taylor, P., 1997. Creating environments which nurture development: messages from research into academics' experiences. *International Journal for Academic Development,* 2 (2), 42-49.

Taylor, P., 1998. Institutional change in uncertain times: lone ranging is not enough. *Studies in Higher Education*, 23 (3), 269-79.

Taylor, P., 1999*. Making sense of academic life: academics, university and change.* Buckingham: SRHE and Open University Press.

Taylor, P., 2008. Being an academic today. *In* R. Barnett and R. Di Napoli, eds., 2008. *Changing identities in higher education: voicing perspectives*. London: Routledge, 27-39.

Taylor, P., Lopez, L. and Quadrelli, C., 1996*. Flexibility, technology and academics' perspectives: Tantalising tales and muddy maps*. Canberra: Higher Education Division, Evaluation and Investigation Program, Department of Employment, Education and Youth Affairs: Australian Government Publishing Service. Available from: http://www.dest.gov.au/archive/highered/eippubs/eip9616/96-16.pdf [Accessed 28 August 2007].

Taylor, T., Gough, J., Bundrock, V. and Winter, R., 1998. A bleak outlook: academic staff perceptions of changes in core activities in Australian higher

education, 1991-96. *Studies in Higher Education*, 23 (3), 255-295.

Teaching Quality Enhancement Committee (TQEC), 2003. *Final Report.* Bristol: HEFCE. Available from: http://www.hefce.ac.uk/learning/heacademy/tqec/final.htm [Accessed 28 August 2007].

Tennant, M., 2004. Doctoring the knowledge worker. *Studies in Continuing Education*, 26 (3), 431 – 441.

Thompson, D. and Holt, D., 1997. Tertiary pedagogy encounters the technological imperative. *Distance Education,* 17 (2), 335-354.

Timmis, S., 2003. *Embedding learning technologically institutionally*. Senior management Briefing Paper Key issues Series: Strategy and Policy, Joint Information Systems Council (JISC), April. Available from: http://www.jisc.ac.uk/index.cfm?name=pub_smbp18embeddinglearningtech [Accessed 28 August 2007].

Trowler, P., 1997. Beyond the Robbins trap: reconceptualising academic responses to change in higher education (…or Quiet Flows the Don?). *Studies in Higher Education*, 22 (3), 301-318.

Trowler, P. 1998. *Academics responding to change*. Buckingham: SRHE and Open University Press.

Trowler, P., ed., 2002. *Higher education policy and institutional change: intentions and outcomes in a turbulent environment.* Buckingham: SRHE and Open University Press.

Trowler, P. and Knight, P., 2002. Exploring the implementation gap: theory and practices in change interventions. *In* Trowler, P., ed., 2002. *Higher education policy and institutional change: intentions and outcomes in a turbulent environment.* Buckingham: SRHE and Open University Press, 142-163.

Trowler, P., Saunders, M. and Knight, P., 2003. *Change thinking: change practices: a guide to change for Heads of Department, Programme Leaders and other change agents in higher education*. York: LTSN Generic Centre.

Tytherleigh, M, Webb, C., Cooper, C. and Ricketts, C., 2005. Occupational stress in UK higher education institutions: a comparative study of all staff categories. *Higher Education Research and Development,* 24 (1), 41-61.

Vaughan, S., Schumm, J-S. and Sinagub, J., 1996. *Focus group interviews in education and psychology.* Thousand Oaks, Cal.: SAGE.

Venkatesh, V., Morris, M., Davis, G. and Davis, F., 2003. User acceptance of information technology: towards a unified view. *MIS Quarterly*, 27 (3), 425-478.

Watson, D., 2000. *Managing strategy*. Buckingham: Open University Press.

Webb, G., 1996. Becoming critical of action research for development. *In:* Zuber-Skeritt, O., ed. *New directions in action research*. 2nd ed. London: RoutledgeFalmer, 137-161.

Weick, K., 1976. Educational organisations as loosely-coupled systems.

Administrative Science Quarterly 21 (1). Reprinted in A. Westoby, 1988. *Cultures and power in educational organisations*. Buckingham: SRHE and Open University Press.

Wells, M., 2005. Academics' experience of change. *British Educational Research Association Annual Conference*, 14-17 September 2005, University of Glamorgan. Available from: http://www.leeds.ac.uk/educol/documents/143818.doc [Accessed 19 October 2005].

White, S., 2007. Critical success factors for e-learning and institutional change – some organisational perspectives on campus-wide e-learning. *British Journal of Educational Technology*, 38 (5), 840-850.

Wilkes, K., Hanson, J., Brown, B., Rowe, J., Shobrook, S. and Tunbridge, I., 2004. Designing the future: partnerships in practice. *In* Brennan, L. and Gosling, D., eds. *Making Foundation degrees work.* London: SEEC, 101-124.

Woodward, S. and Hendry, C., 2004. Leading and coping with change. *Journal of Change Management*, 4 (2), 155-183.

Yin, R. K., 1989. *Case study research: design and methods.* Newbury Park, CA; Sage.

Yin, R.K., 2003. *Applications of case study research.* 2nd ed. Thousand Oaks, Cal.: SAGE Publications.

Zayim, N., Yildrim, S., and Saka, O., 2006. Technology adoption of medical faculty in teaching: differentiating factors in adopter categories. *Educational Technology and Society,* 9 (2), 213-222. Available from: http://www.ifets.info/journals/9_2/17.pdf [Accessed 29 November 2007].

APPENDIX 1A-1D Interview Schedules

APPENDIX 1A

Interview Schedule with Senior Executives

Introduction:

Vice Chancellor/Pro-Vice Chancellor, thank you very much for agreeing to be interviewed as part of my research. As I mentioned in my email to you, I would like to record the interview, I hope you still agree to this? The tape will be transcribed and I will send a copy to you for checking. If I use any material from the transcript in the writing up, it will be anonymised and the tape and all records will be destroyed at the end of the research. May we begin?

Key Questions:

1. Can we start by considering the current Learning and Teaching Strategy? [Copy sent to respondents prior to the interview so they had it readily available]. It was developed a couple of years ago now, so how appropriate do you think its themes still are for this university at this point in time?

   Prompt: Strengths? Weaknesses?

2. Are the external drivers for HE that influenced the strategy still the same as they were when it was developed, or have they changed?

   Prompts: Internationalisation? Regional partnerships? Employer links?

3. How might these be reflected in a revised version of this University's Learning and Teaching Strategy?

   Prompt: Any issues that have become more or less important to this University?

4. We are beginning to see greater emphasis externally being placed on e-learning, so in what ways do you think this University might begin to develop a more comprehensive approach to its use of E-learning?

   Prompt: remind of current approach with projects; be more directive with Schools? Give external examples; eg: University A; University B; More distance learning programmes? UK E-University?

5. Are there ways in which this University might demonstrate more openly that teaching is recognised and rewarded equally alongside research and enterprise activities?

   Prompt: Engaging staff in new approaches to learning and teaching?; Excellent teacher award? Valuing course leaders?

Concluding remarks

I have come to the end of my questions now, is there anything you would like to ask me, or to clarify? Thank you very much for taking the time to discuss these issues.

APPENDIX 1B

Interview Schedule with Academic Managers

Introduction:

Thank you very much for agreeing to meet with me. I would like to use this meeting firstly to find out more about your staff development needs for your academic group in the coming year, and in particular, I would be interested to hear your views on what strategies the University should consider if it wants to encourage academic staff to make greater use of online and flexible learning methods. This is partly so I can see how [Educational Development unit name] might be able to support you with staff development, but also, in connection with my research, to explore your views on factors affecting the adoption or rejection by academics of online learning.

I would like to make notes to provide a record of our discussion but if I use any data arising from our discussion in my research, individuals' names will not be identifiable and the records will be destroyed at the end of the research. Are you comfortable with that? May we begin?

Key Questions:

1. Can you tell me about your priorities for staff development for academics in your group in the coming year?

2. To what extent are you able to use the appraisal process to identify these priorities?

2. What do you think are the development needs of academics to support the delivery of more flexible delivery and online learning?

   Give examples if necessary: computer conferencing; developing web based resources; automated assessment; moving to an integrated VLE system.

3. What, in your view, helps or hinders academics adopting online teaching methods?

   Eg: Skills or knowledge; time allowance; their perception of teaching, generally and in their subject/professional area; general motivation; will be put out of their job; students' expectations;

4. Given the University's growing emphasis on flexible delivery, what do you think an appropriate strategy might be for moving online learning forward?

5. The University has just been awarded another National Teaching Fellowship; how appropriate do you think it would be for the University to recognise and reward excellent teaching more openly internally? How might this be achieved?

Concluding remarks

I have reached the end of my questions now, is there anything you would like to ask me? Thank you very much for agreeing to meet me, this has been a very useful insight into these issues for me, I hope you have found it useful too.

APPENDIX 1C

Interview Schedule with Focus Group

Introduction

Thank you for coming to take part in this discussion, I do appreciate you giving up the time to come. The University is reviewing its Learning and Teaching Strategy and it is important to draw upon the views of teaching staff in this process. I am particularly interested to hear about your views on the University's approach to online learning. I would like to ask a few questions to get the discussion going, but my role is mainly to listen. I anticipate this lasting about an hour, and afterwards I aim to produce a summary of the main issues to take to the Learning and Teaching Development Committee. I am also undertaking research into the use of online learning so, as I said in the invitation, I would find helpful to record the discussion to assist me in writing up the report and for my research. No individuals will be identified by name and if I use any comments from the transcript they will be anonymised. The tape will be destroyed when the report and the research are finished. Is everyone comfortable with that? May we begin?

Opening question

Would you mind going round the table to introduce yourselves. Please tell us your name and School, what subject you teach, and roughly how long you have been teaching in Higher Education.

Introductory question

There are many terms used at the moment when we talk about using IT for learning and teaching, so what does the term 'online learning' mean to you?

Key question 1
Summarise responses and move on

Having got some idea now of how you all see online learning, what direction do you think the University should be taking it in?

Follow up questions if needed

What resources do you think are needed to increase online learning at this University?
What support do academics need?
What should we be saying about the students' experience with online learning when they come here?

Key question 2

How would you view a scheme to reward and recognise excellent teaching in the University?

Concluding remarks

End by summarising main issues raised and invite response to final question: Is there anything else we have not mentioned that you think is important? Thank you once again for coming today; I hope you found it an interesting discussion.

APPENDIX 1D

Interview Schedule with Early/Late Majority Academics

Introduction

Thank you very much for agreeing to this interview. I am doing research for a doctorate and these interviews are part of the data gathering process. I am looking at the factors that prompt lecturers to use different teaching methods and the ways in which the University might facilitate this. As I said in my initial email, I would like to record the interview, so I hope you are still comfortable with that? The tape will be transcribed and I will send a copy to you to check. If I use any material from the transcript, it will be anonymised and the tape and transcript will be destroyed when the research is completed. May we begin?

Key questions

1. First of all, could you give me some background information about yourself?

- Could you tell me when you started teaching at [Southern] University?
- Was this your first academic post or had you taught anywhere else?
- What was it about working in Higher Education that attracted you to this job?
- What subjects do you teach? have these changed since you started teaching here?
- Are you a course leader?

Thank you for that background information, I would like to move on to hear more about your overall approach to using different learning and teaching methods;

2. **Which teaching methods you use most frequently?**

Prompt if not mentioned:
Lecture; Seminar; Computer labs; Tutorials; PowerPoint/ohp; Case studies; Video; Field work; Demonstrations; E-learning; Web-based/VLE;

3. Why, what factors influence your choice of these methods?

Prompt if not mentioned: Availability; Its always been done like this; Best for student learning; Appropriate for the subject outcomes; Resources; Location

4. Is there any one person or group of people who influence/have influenced your choice of any of these methods?

Prompt if not mentioned: Other member of my Course Team; My Course Leader; Someone I share a room with; other colleague; School's Head of Learning and Teaching; Schools' Learning Technologist; Someone external to the University, eg: Professional body

5. **What do you think are the major learning and teaching challenges you face in the coming year?**

   Prompt if not mentioned: student expectations; larger numbers; pressure to use particular approaches such as e-learning, flexible delivery; access from off-campus;

6. **What is the University doing to facilitate change and help you adapt to these challenges; what about in your School? Factors that hinder?**

7. **If not already referred to - Do you use e-learning? What do you understand by the term e-learning?**

8. **What might the University or your School do to help you adapt to using e-learning?**

Concluding remarks

Thank you, I have reached the end of my questions, but is there anything else you would like to mention, or anything you would like to ask me?

Thank you very much for taking part in this interview, I have found it really interesting to hear your views.

APPENDIX 2 Interview coding protocols

Senior Executives			Academic Managers		
Literal or descriptive	**Interpretive**	**Reflexive**	**Literal or descriptive**	**Interpretive**	**Reflexive**
L&T priorities	Collegial	My talk	Staff development	Pressures	Surprise
Widening participation	Challenge	Lack of knowledge	Appraisals	Timetables	Disappointment
Partnerships	Incremental	Collusion	Support for e-learning	Students	
Research led	Directive	Subversive	Barriers to adoption	Academic roles	
	Risk	Challenging VC	Heavy workload	Policy re-interpretation	
HE drivers	Students	My feelings	Time	Bureaucracy	
Fees	Academics	Ignored	Subject	Powerlessness	
Funding	Discord		Confidence		
Benchmarks			Personal preference		
Quality			Support - local		
			- central		
E-learning			IT resilience		
- approaches			Students		
- rationale for			Vision		
Reward & recognition			Strategy		
			Reward & recognition		

Focus Group (Mixed adopter categories)			Individual Academics (Early & Late Majority Adopters)		
Literal or descriptive	**Interpretive**	**Reflexive**	**Literal or descriptive**	**Interpretive**	**Reflexive**
E-learning examples	Face to face	Deference	Appointment as lecturer	Autonomy	Self-deprecation
Students' use	Desperation	Inhibiting	Reasons	Managed	Not doing it right
Students' expectations	Threat		Teaching methods	Identity	Distance v Closeness
Support	Autonomy		Preferences	Presence	Deference
Resources	Workload		Contact with students	Students' influence	Pleasing me
Time	Isolation		Relationships with students	Opinion leaders' influence	Shame
Policy	Unaware		Demonstrate expertise		Passive silencing
IT resilience	Networks		Challenge students		Empathy
Choice	Valued		Workload		Bias
Expertise			Control - self & others		Ethics of care
Reward & recognition			Risk		
			Research		
			Networks		
			School Colleagues		
			Isolation		
			Observe others		
			Challenges		
			Support		

Pattern Codes for all sub-units

Senior Executives	Academic Managers	**Focus Group (Mixed adopter categories)**	**Individual Academics (Early & Late Majority Adopters)**
E-learning Champions	E-learning Champions	Identity inhibiting adoption	Identity & presence
Other priorities	Disjunction	Students' role	Identity & research
Balancing act	Reinvention	Role of networks	Opinion leaders
Decentralised organisation	Decentralised organisation		Change agent tensions
			Insider researcher